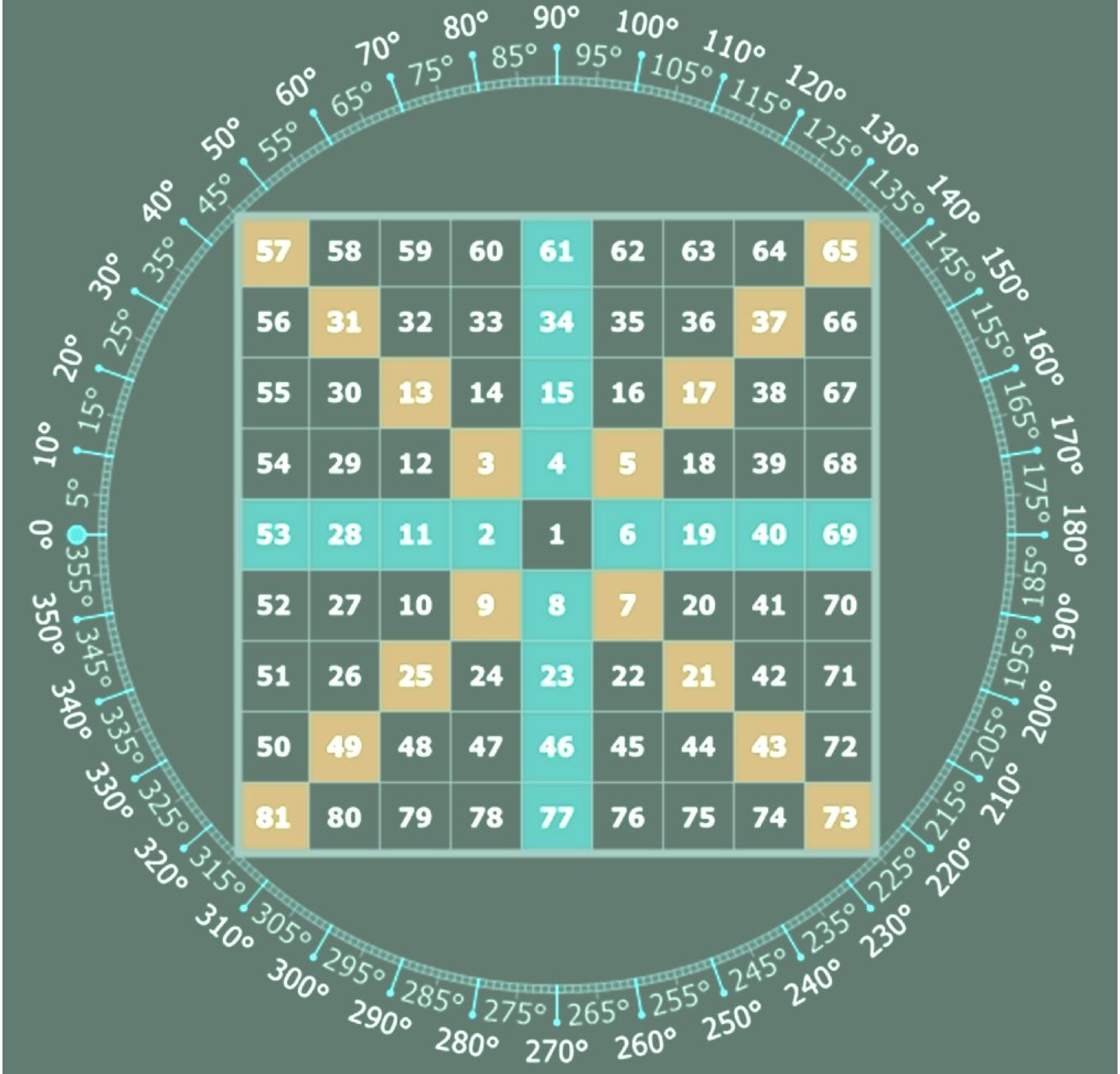
ASTRONOMICAL ECONOMICS SERIES

W.D. GANN

SQUARE OF NINE



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ARTEM KALASHNIKOV

Gann Square of Nine

Astronomical economics and the techniques of W.D Gann.

ARTEM KALASHNIKOV

GANNZILLA

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To Cmux

For her advice, her patience, and her faith,

Because She always understood.

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Preface

Dear fellow traders and enthusiasts,

Welcome to the fascinating world of Gann's Square of 9 method and the legendary trader W.D. Gann. My name is Artem Kalashnikov, and it is with great pleasure that I present this book to you. Within these pages, we will explore the profound techniques and principles that have shaped the financial markets and continue to inspire traders around the globe.

As a devoted student of financial markets and an admirer of W.D. Gann's work, I embarked on a journey to understand and apply his trading methods in the modern era. The result of this exploration is the book you hold in your hands. It is my hope that this work will provide you with valuable insights and practical knowledge to enhance your trading endeavors.

But that's not all; in addition to the knowledge shared in this book, I am thrilled to introduce you to Gannzilla, a groundbreaking software application designed to elevate your trading experience to new heights. Inspired by the timeless wisdom of W.D. Gann, Gannzilla incorporates his most powerful methods and techniques in an intuitive and user-friendly platform.

The heart of Gannzilla lies in its Square of Nine chart, a circular marvel that Gann himself utilized to predict price movements. With Gannzilla at your fingertips, you can navigate the markets with newfound clarity and precision, just as the master trader did in his time. The software is equipped with a host of tools to assist your technical analysis, including the Gann Fan, which helps identify key support and resistance levels.

As we journey through the pages of this book, you will discover how Gannzilla seamlessly integrates with Gann's Square of 9 method, offering you real-time charting capabilities and advanced features to execute your trading strategies effectively. The synergy between this software and the knowledge in this book will unlock a world of opportunities for your financial success.

Gannzilla has been meticulously developed to cater to traders of all levels, whether you're a seasoned professional or just starting your trading journey. It is my firm belief that combining the insights from this book with the powerful tools of Gannzilla will empower you to make well-informed decisions and embark on a path to financial independence.

For those eager to embark on this journey with Gannzilla, you can download the software from gannzilla.com and unlock the full potential of your trading endeavors.

I am deeply grateful for the guidance of like-minded traders and the supportive community that led to the creation of both this book and Gannzilla. Their passion for understanding the markets and dedication to mastering Gann's methods have been invaluable.

I invite you to embark on this enlightening journey with me. Together, armed with the wisdom of W.D. Gann and the prowess of Gannzilla, we will decode the market's secrets and unlock the full potential of your trading endeavors. May this book and Gannzilla serve as guiding lights in your pursuit of success and financial independence in the financial markets.

Happy reading and prosperous trading!

Artem Kalashnikov
4 Aug 2023

William D. Gann – A Legend

October: This is one of the peculiarly dangerous months to speculate in stocks. The others are July, January, September, April, November, May, March, June, December, August and February.

- *Mark Twain, Pudd'nhead Wilson*

Who was William Gann?

On a warm June 6th in 1878, a remarkable individual named William Delbert Gann was born in Lufkin, Texas. Lufkin, a town nestled between Houston and Texarkana, sat in the heart of cotton country.

Gann's parents, Sam H. and Susan R. Gann, immigrants to Texas from the British Isles, lived on a cotton ranch near Lufkin, right by the fertile banks of the Neches River. He grew up around the cotton warehouses in Angelina County where cotton was king.

W. D. Gann was raised in a very strict Methodist church family. His mother, a very religious person, encouraged him to read the Bible at a very early age, and in fact, wanted him to become a minister.

Gann was not sure he wanted to become a minister, but studying the Bible was certainly easier than working in the cotton fields, as was his father's wish. He attended church every Sunday with his parents and as he listened to the sermons. There, He found his interpretation of the Bible scriptures to differ from the minister's.

In the Bible, he discovered time cycles, repetition of important numbers, and references to the wise men following the stars. Also, that it was written in a veiled language which made interpreting the real meaning difficult. By the age of 21 Gann had nearly memorized the Bible.

During his school years, Gann excelled in mathematics and was generally called as a gifted mathematician. His tremendous appetite for knowledge and his open-minded attitude led him into many different fields of study that eventually resulted in discoveries in the markets that would otherwise have been overlooked. He completed high school at a time when most children were only able to attend school through the third or fourth grade.

As a teenager, Gann liked to be called W. D., and he used these initials for the rest of his life. W. D. pestered his parents until they relented and signed a minor release form that he needed to obtain a job.

His first job was that of a News Butcher on the passenger train between Texarkana and Tyler, Texas. This job required him to be quick-witted, aggressive, and able to deal with all kinds of people.

During his teen years, he worked in the cotton warehouses in Lufkin and Texarkana, Texas. While working in the cotton warehouse, he was introduced to commodity trading.

In 1902, at age 24, W. D. Gann made his first commodity trade in cotton, the market he knew best. The small profit from that trade marked the beginning of what was to become one of the most remarkable and legendary careers the speculative markets have ever known.

Over the next 53 years, Gann took over $50,000,000 from the markets. It has been reported by a man who worked for Gann the last eight years of Gann’s life, that approximately 1/3 of the money he made was for himself and the other 2/3 was for the accounts he supervised for clients.

From that very first trade, it is believed Gann was using principles and techniques he continued using throughout his trading career.

The notations on some of his early charts substantiated this belief. As time progressed, his trading methods were refined.

In 1906 W. D. went to Oklahoma City. He worked as a broker for a brokerage firm, trading for himself while handling large accounts for clients. He studied the cause of success and failure in the speculation of other traders. He found that over 90% of traders who enter the markets without knowledge and study usually lose in the end.

Gann also lost a significant amount of money and admitted his trading was based on hope, greed, and fear.

Later on, in his books and courses, he cautioned all traders about these emotions. Early on, Gann began to note the periodical recurrence of rise and fall in stocks and commodities. This led him to conclude that natural law was the basis of market movements.

He then devoted ten years to the study of natural law as applicable to the speculative markets. During that time he traveled to England, Egypt, and India to gain knowledge in ancient mathematics and astrology. In the British Museum in England, he conducted extensive research on market cycles. In an Egyptian pyramid, it is believed he found the basic construction of what was to become known as his Square of 9 Chart.

After exhaustive research and investigation of the known sciences, he discovered the Law of Vibration enabled him to accurately determine the exact prices to which stocks or commodities would trade within a given time, and that each stock or commodity had its own rate of vibration.

At age 27, Gann was a well-known name in the Southwest. His views on the analysis of cotton prices were so well respected that a Texarkana newspaper, The Daily Texarkanian, ran a story on Gann's cotton predictions.

In 1908, at age 30, Gann moved to New York and opened his own brokerage office at 18 Broadway. He began testing his theories and techniques in the market.

On August 8, 1908, he made one of his greatest mathematical discoveries for predicting the trend of stocks and commodities. This was "The Master Time Factor."

Within a year, it became clear to others that his success was based on more than just luck. No one researched time cycles as extensively as Gann. His charts show the cycles with which he worked, went back to history's beginning, and bore no resemblance to other researchers' time cycle studies.

In October 1909, Richard D. Wyckoff, Owner and Editor of The Ticker and Investment Digest asked Gann for an interview to document his trading ability for one month.

The interview was granted, and Gann's trades were monitored for 25 market days during the month of October in the presence of a Ticker representative. At that time the markets also traded on Saturday.

Gann made 286 trades in various stocks, both long and short. There were 264 trades that resulted in profits and 22 in losses. 92.3% of the trades were profitable. The capital used doubled ten times resulting in 1000% gain on his original investment during those 25 trading days.

What makes this even more phenomenal is that Gann did this with an average time between each trade of about twenty minutes.

In one day Gann made 16 trades in the same stock, 8 of which were in either the top eighth or the bottom eighth of that particular swing.

Such a performance is unparalleled in the history of Wall Street.

As stated by James R. Keene, the famous speculator of that era, “The man who is right 6 times out of 10 will make his fortune.”

It seems a foregone conclusion that Gann was picking tops and bottoms with a high degree of accuracy. At this point in time, in 1909, he was only 31 years of age, so whatever methods he was using had already been discovered. This biographer believes that after his sensational performance, Gann regretted having granted the interview, as it was stated in the printed article that he did not know the results were to be published. When the article was printed in The Ticker Investment Digest, Gann was besieged with people asking how he was able to pick tops and bottoms as he had demonstrated.

His only answer to them was he used The Law of Vibration to make all his calculations. At this conjuncture, there were only two choices:

1. To give away his secret discoveries and risk destroying the markets, or
2. To detract from his method of picking tops and bottoms by writing books and courses about mechanical trading systems, the use of geometrical angles, the use of Time and Price Charts, such as the Octagon Chart (Square of 9), Master 12 Chart (Square of 144), Hexagon Chart (the cube), Square of 90, Square of 52, 360 Degree Circle Chart, and many other trading techniques.

If Gann had continued trading using only his method of picking tops and bottoms, without a doubt he would have become one of the wealthiest men in the world, and in so doing would have attracted too much attention. He would have been asked too many questions by traders and would have been compelled to explain.

However, at certain times, he probably used his method to his advantage. Gann had a profound understanding of natural law, so rather than place himself in an embarrassing situation, he chose to trade using his mechanical systems and other techniques he had developed. Also, having more capital than was required for a good living was not important to him, as he was more interested in the knowledge possessed by ancient civilizations and the occult sciences.

Gann understood how the Laws of Nature controlled human beings and, therefore, he understood the markets, because the markets are nothing more than an expression of the actions of human beings.

The two previous paragraphs are my belief. You may agree or disagree, but before you arrive at a conclusion, carefully study Gann's 1909 trading demonstration. He made 286 trades in 25 days, which is 11 trades per day. To do this, you must pick the tops and bottoms on a short intraday time period.

If what I believe is true, it is very sad to think that a genius individual such as W. D. Gann, had to disguise the truth throughout his life, with a smoke screen of many trading methods and techniques.

In 1918 his office address in New York was 81 New Street and in the early 1920's was at 49 Broadway. Over the years, Gann maintained several offices in New York all located on Wall Street with the address numbers of 78, 80, 82, 88, 91, 93, and 99.

At the height of Gann's career, he employed 35 individuals who made charts of all kinds, did analytical research at his direction, and performed many duties involved with his various publications and services.

The name of one of his businesses was W. D. Gann Scientific Service, Inc., and the other, initiated in 1919, was W. D Gann Research, Inc.

The firms published the following Supply and Demand Letters: Daily Stock Letter, Tri-Weekly Stock Letter, Weekly Stock Letter, Daily Commodity Letter, Tri-Weekly Commodity Letter, and Weekly Commodity Letter. Telegraph Service was all offered as follows: Daily Telegraph Service on Stocks, Daily Telegraph Service on Cotton, Daily Telegraph Service on Grain, and Telegrams on Important Changes Only, on Stocks or Commodities. Published under Annual Forecasts were: Annual Stock Forecast, Annual Cotton Forecast, Annual Grain Forecast, Annual Rubber Forecast, Annual Coffee, Sugar and Cocoa Forecast.

Supplements to all Forecasts were issued and mailed on the first of each month. Special Forecasts on stocks or other commodities were made on request. Also offered were daily, weekly, monthly, quarterly, and swing charts on stocks and commodities. Gann taught advanced courses of instruction entitled Master Forecasting Method, at a cost of $2,500, and New Mechanical Method and Trend Indicator, at a cost of $5,000, to those who want it for their own use and will not publish, sell, or teach it to others. It is too valuable to be spread broadcast.

The cost of these courses and personal instruction in today's economics would be $25,000 to $50,000 or more.

As early as 1923, Gann offered a service entitled "The Busy-Man's Service." This was a service for professionals and businessmen where Gann supervised their trading accounts by advising them what and when to buy and sell. In later years the name of this service was changed to "Personal Service."

The cost of this service was on a 1-month, 3 months, 6 months, or annual basis, or on a Part-of-Profit Plan where the monthly fee was smaller and Gann received 5% of the net profits. Under the Part-of-Profit Plan, it was required that a minimum of 100 shares be traded.

The clients were advised by telegram or letter.

An article in The Evening Telegram dated New York, Monday, March 5, 1923, used the words "prophet" and "mathematical seer" to describe Gann. It also stated his followers declared he was 85% correct in his forecasts. He predicted the election of Wilson and Harding using fortunate numbers and fortunate letters combined with cycles.

He predicted the abdication of the Kaiser and the end of the war to the exact date six months in advance. His predictions were based on mathematics. He stated if he had the data he would use algebra and geometry to tell exactly by the theory of cycles when a certain thing is going to occur again.

He further stated that there is no chance in nature because mathematical principles of the highest order lie at the foundation of all things. The article pointed out that Gann received calls every day from prominent persons asking him to cast their horoscope. It also said he told politicians whether or not they would be elected and solved problems for clergymen, bankers, and statesmen.

In another article in the Morning Telegraph, dated Sunday, December 17, 1922, the Financial Editor, Arthur Angy, stated that "W. D. Gann had scored another astounding hit in his 1922 stock forecast issued in December 1921, I found his 1921 forecast so remarkable that I secured a copy of his 1922 stock forecast to prove his claims for myself. And now, at the closing of the current year of 1922, it is but justice to say I am more than amazed by the result of Mr. Gann's remarkable predictions based on pure science and mathematical calculations. "

W. D. and his wife, Sadie H. Gann, had one son and three daughters born to their marriage. Their son, John L. Gann, was in partnership with his father for several years in the late 1930s and early 1940s, operating under the firm name of W. D. Gann & Son, Inc. Apparently, the two personalities were not always compatible, as their association was ended in the mid-1940s. This writer has been told one of their main differences concerned astrology, as John did not believe astrology had any effect on market movements or human behavior.

This probably upset W. D. as he knew well the effect of planetary motion on the markets and the individual. Following the association with his father, John served as a broker for many years for the firm Sulzbacher, Granger & Co. in New York City. It is believed that John passed away in 1984.

For many years Gann maintained a home in Scarsdale, New York, which was, at the time, the estate bedroom community for New York City.

In an article that appeared in the May 26, 1933, New York Daily Investment News, it was reported that Gann left New York in the first 1933 model Stinson Reliant airplane, piloted by Flinor Smith, a woman aviator, to conduct an extensive tour of the country analyzing cotton, wheat, and tobacco crops, and business conditions.

The airplane was equipped with navigation instruments, radio receiving equipment, and extra-large fuel tanks that gave a flying range of 750 miles. It was powered by a Lycoming engine and cruised at 135 miles per hour. Gann was the first Wall Street advisor to use an airplane for studying market conditions so he could advise clients much faster about changing market conditions. During his trip, he was a speaker to members of Kiwanis, Rotary, Chamber of Commerce, and other business organizations in various larger cities throughout the United States.

In 1935, Gann made an airplane trip to South America for studying crop conditions, and to gather information on the increase and production of cotton in Peru, Chili, Argentina, and Brazil. He logged 18,000 miles by air and another 1,000 miles by automobile.

In July of 1936, Gann purchased a specially built all-metal airplane, which he named “The Silver Star,” and used in making crop surveys. In July of 1939, he purchased a new Fairchild airplane for the same purpose.

Gann was a member of the Commodity Exchange, Inc. of New York, the New Orleans Cotton Exchange, the Rubber Exchange of New York, the Royal Economic Society of London, the American Economic Society, the Masonic Lodge, the Shrine, the Chicago Board of Trade, and was a devout Christian in the Methodist Church.

Gann had a winter home in Miami, Florida, and in the 1940’s moved there on a full-time basis. His office was at 820 S. W. 26th Road in Miami. While in Florida, he continued his advisory services as well as teaching his commodity and stock market courses, either in person or by mail.

By the late 1940’s he had a recommended list of Books For Sale that included the subjects of numerology, astrology, scientific, and miscellaneous. He was involved in real estate holdings and enjoyed large automobiles, especially Lincolns, which he purchased new yearly.

In 1954, after making several successful coffee and soybean trades, Gann purchased a fast express cruising boat that he named “The Coffee Bean.”

It was reported that Gann wore the same type of suit throughout his life and that his home was filled with items collected in his world travels. He vacationed often in South America. But, in the opinion of his peers, he did not live beyond his means.

W. D. Gann wrote some of the best books ever written on the stock and commodity markets. The following is a list of the books written by him and the year they were published:

- Speculation a Profitable Profession
- The Truth of the Stock Tape
- The Tunnel Thru the Air
- Wall Street Stock Selector
- Stock Trend Detector Scientific Stock Forecasting
- How to Make Profits Trading in Puts and Calls
- Face Facts America. Looking Ahead to 1950
- How to Make Profits Trading in Commodities

- 45 Years in Wall Street
- The Magic Word
- How to Make Profits Trading in Commodities

Gann was a prolific writer. His style of writing was unique. Readers of his books considered him to be a poor writer with a limited use of the English language. Not so!

Upon methodic study of his work, the reader will discover in time the Gann method of teaching. He will inspire the reader to research everything from the origin of numbers to the musical scale and vibrations.

W. D. Gann, in my estimation, was a genius. He was born a Gemini with a high intellectual capacity, and a dual personality that caused him to be both genial and obstinate. He was a gifted mathematician, an expert chart reader, and had an extraordinary memory for figures.

Take away his science and he would beat the market on chart reading alone. One of Gann's most important technical tools was his charts and no one kept up as many as he did. Gann's charts encompassed 55 years, from 1900 to 1955. During this time thousands of daily, weekly, monthly, quarterly, yearly, and other various charts, were made with great care, each a work of art. He believed charting was an art and if you understood everything the chart was showing, it would aid in forecasting the next day, week, or months, price movements.

Gann was a workaholic, at times working 17 hours per day, 6 days per week. He was very demanding of those who worked with and for him, and expected the same effort from them that he himself put forth. He expected to issue instructions only once and did not feel it should be necessary to repeat them.

Gann was deeply analytical and studied the price actions of various stocks and commodities back through the years. He spent nine months in the British Museum working day and night researching stock and commodity prices and dates from 1820, and wheat prices and dates from 1200.

He also spent long hours and long days in the Astor Library in New York City researching stock and commodity markets. He was a student of numbers, number theory, progressions, and the progression of numbers. His trading system was based on natural law and mathematics. Since time progresses as the earth rotates on its axis and in its order, and time is measured by numbers and progression of numbers, and prices in their movement upward and downward are also measured in numbers, it is understandable why Gann had an intense interest in numbers, number theory, and mathematics.

A keen understanding of natural laws and their effect on mankind has a direct effect on the markets. The markets are only extensions or reflections of man's actions.

In Gann's time, there were no calculators. He used a slide rule and the various master charts he developed, such as the Square of 9, for his calculator. He kept an open mind to any trading ideas to achieve perfection. When making his forecasts, he used many methods to arrive at the time for a trend change, and all of them to confirm he was correct.

In his early trading, he made thousands of dollars. But, by listening to false rumors and other people's ideas, he also lost thousands of dollars. In 1913 and again in 1919, he lost small fortunes when the brokerage firms he was trading with went bankrupt. One of these firms was Murray Mitchell and Company. In those days the client's funds were not protected by exchange regulations in case of a failure, as they are today.

During this time, he was also involved in two bank failures. Regardless of these losses and misfortunes, he was always able to rely upon mathematical science to aid him in making a financial comeback. This is why Gann states that knowledge of the market is more important than money.

Today, people believe "times are different," but Gann's time saw its bull markets and panics in the stock market, bull markets, and panics, in the commodity market, wars, inflationary periods, depressions, bank closings, etc. In 1921 the rate of inflation was 100%.

Strikes were rampant, jobs impossible to find, and productivity at very low levels. The Great Depression of 1929 to 1932 and the outright confiscation of the citizen's gold that was exchanged for printed money, left deep scars on the country and its citizens. W. D. Gann was avidly against the New Deal and Roosevelt's creeping socialism.

Therefore, to learn from other people's past experiences, people today should understand Gann's famous quotation, "The future is but a repetition of the past, or as the Bible says, the thing that hath been, it is that which shall be; and that which is done, is that which shall be done; and there is no new thing under the Sun."

Gann said, “The average man’s memory is too short. He only remembers what he wants to remember or what suits his hopes and fears. He depends too much on others and does not think for himself. Therefore, he should keep a record, graph, or picture of past market movements to remind him what has happened in the past can, and will, happen in the future. Panics will come and bull markets will follow just as long as the world stands and they are just as sure as the ebb and flow of the tides because it is the nature of man to overdo everything. He goes to the extreme when he gets hopeful and optimistic. When fear takes hold of him, he goes to the extreme in the other direction.”

The following is taken from 45 Years in Wall Street and is very good advice and very true in today’s world.

“Every man takes out of life just exactly according to what he puts in. We reap just what we sow. A man who pays with time and money for knowledge and continues to study and never gets to the point where he thinks he knows all there is to know, but realizes that he can still learn, is the man who will make a success in speculation or in investments. I am trying to tell you the truth and give you the benefit of over 45 years of operating in stocks and commodity markets and point out to you the weak points that will prevent you from meeting with disaster. Speculation can be made a profitable profession. Wall Street can be beaten and there is money operating in commodities and the stock market if you follow the rules and always realize that the unexpected can happen and be prepared for it.”

In How to Make Profits in Commodities —

Gann made the following comments regarding knowledge as he believed knowledge is power. All who read this should heed and always remember his advice.

“The difference between success and failure in trading in commodities is the difference between one man knowing and following fixed rules and the other man guessing. The man who guesses usually loses. Therefore, if you want to make a success and make profits, your object must be to know more; study all the time; never think that you know it all. I have been studying stocks and commodities for forty years, and I do not know it all yet. I expect to continue to learn something every year as long as I live. Observations, and keen comparisons of past market movements, will reveal what commodities are going to do in the future because the future is but a repetition of the past. Time spent in gaining knowledge is money in the bank. You can lose all the money you may accumulate or that you may inherit – that is if you have no knowledge of how to take care of it – but with knowledge you can take a small amount of money and make more after time spent in gaining knowledge. A study of commodities will return rich rewards."

Sometime in 1947, Gann sold W. D. Gann Research, Inc. to C. C. Loosli, a San Francisco attorney. He became disenchanted with the business and on February 14, 1948, W. D. Gann Research, Inc. was transferred to Mr. Joseph L. Lederer of St. Louis, Missouri. The office for W. D. Gann Research, Inc. was maintained at 82 Wall Street in New York until 1952. Then it was moved to Scarsdale, New York, and in 1956 relocated to St. Louis, Missouri, where its only business was that of investment adviser.

In 1950 in Miami, Florida, Gann and a partner, Ed Lambert, founded Lambert-Gann Publishing Co. Ed Lambert was an architect who designed the Inter-State Highway System in the greater Miami area Lambert Gann Publishing Co. published all Gann's books and courses.

W. D. Gann passed away in the Methodist Hospital in Brooklyn, New York, on June 14, 1955, at the age of 77. He was survived by his wife, Sadie, three daughters, and a son. That day the world truly lost a market legend.

After Mr. Gann's death in 1955, Ed Lambert continued to operate the business that included a chart service of updated Gann-style charts.

He was not as active in promoting Gann's writings as when Gann was alive, so for the following twenty years, Gann's work became quite obscure. In 1976 Bill and Nikki Jones of Pomeroy, Washington purchased Lambert-Gann Publishing Co. and the Gann copyrights. In the purchase were all of his personal research including thousands of his charts, papers, books, and writings he had collected through fifty years of trading and research. There were also tables and miscellaneous office furniture used by Gann. The largest Mayflower moving van available was required to transport this purchase to Pomeroy, Washington.

Following Billy Jones' death in September 1989, Nikki Jones continues to operate Lambert Gann Publishing Co., carrying on the Gann tradition with the sale of his books and courses. In this biographer's opinion, W. D. Gann was the greatest market researcher of all time. His trading career spanned more than a half-century. During that time he devoted his total life to market research and trading. He researched every possible aspect of natural laws in conjunction with variables of price and time in market movements.

This study became an obsession to find the cause and effect of market fluctuations, which he did. The trading techniques Gann developed work the same today as they did when he used them. His library contained volumes of books and manuscripts on harmonic waves, proportion, growth, gravity, electricity, nature, and natural phenomena. However, there were no books on open interest, volume, stocks, or commodities.

The only books and courses on commodities and stocks were his own.

He was a humble man who stated, at age 75, that he had not learned all there was to know, and yet, he knew more about the markets than any trader who ever lived.

There is an important lesson to be learned from the study of his life and his work. For those of you who have diligently studied his writings, you will understand my statements. Hopefully, for those of you who are not familiar with Gann, this writing will inspire you to begin.

Legends of William Gann

William D. Gann was a trader in the early 20th century. His abilities for profiting from the stock and commodity markets remain unchallenged. Gann's methods of technical analysis for projecting both price and time targets are unique. Even today, his methods have yet to be fully duplicated.

His successes are legendary. Gann literally converted small accounts into fortunes, increasing their net balances by several hundred percent. There are numerous examples of his trading successes, among which are these:

- 1908 – a $130 account increased to $12.000 in 30 days.
- 1923 – a $973 account increased to $30.000 in 60 days.
- 1933 – 479 trades were made with 422 being profitable. This is an accuracy of 88% and 4000% profit.
- 1946 – A 3-month net profit of $13.000 from starting capital of $4500 ~ a 400% profit.

The following paragraph appeared in the December 1909 issue of "Ticket" Magazine. It was written by R.D. Wyckoff.

Richard Demille Wyckoff, commonly known as R.D. Wyckoff, was a prominent stock market analyst and trader. He was born in 1873 and became well-known for his expertise in technical analysis and the study of stock market trends.

Wyckoff is best remembered for developing a method of chart analysis known as the **Wyckoff Method or Wyckoff Analysis**, which focuses on understanding the intentions of large institutions and market manipulators by analyzing price and volume patterns.

Wyckoff started his career as a stockbroker and later founded the Magazine of Wall Street, where he shared his market insights and analysis with readers. Wyckoff describes Gann's proficiency for projecting price targets forward in time:

"One of the most astonishing calculations made by Mr. Gann was during last summer (1909) when he predicted that September Wheat would sell at $1.20. This meant that it must touch that figure before the end of the month of September. At twelve o'clock, Chicago time, on September 30th (the last day) the option was selling below $1.08 and it looked as though his prediction would not be fulfilled. Mr. Gann said, 'If it does not touch $1.20 by the close of the market, it will prove that there is something wrong with my whole method of calculations. I do not care what the price is now, it must go there. It is common history that September Wheat surprised the whole country by selling at $1.20 and no high in the very last hour of trading, closing at that figure".

Gann's trading methods are based on personal beliefs of a natural order existing for everything in the universe. Gann was part of a family with strong religious beliefs. As a result, Gann would often use Biblical passages as a basis for not only his life but his trading methods. A passage often quoted by Gann was this from Ecclesiastes 1:9 – 10:

"What has been, that will be; what has been done, that will be done. Nothing is new under the sun. Even the thing of which we say, 'See, this is new!", has already existed in the ages that preceded us."

This universal order of nature also existed, Gann determined, and we have the same opinion now, in the stock and commodity markets. Price movements occurred, not in a random manner, but in a manner that cat be pre-determined. The predictable movements of prices result from the influence of mathematical points of forces found in nature… And what is the cause for all these points of force?

Right… cosmos…universe…all planets around us.

This Gann could say at that time.

These points of force were felt to cause prices to not only move but move in a manner that can be anticipated. Future targets for both price and time can be confidently projected by reducing these mathematical points of forces to terms of mathematical equations and relationships.

The mathematical equations of Gann are not complex. They result in lines of support and resistance which prices invariably will follow.

Gann held that time is the most important element of trading. Time is the factor that determines the length of a commodity's price trend. When time dictates that trending prices should react, prices may stabilize for a short period, or they may fluctuate within a tight range, but eventually, they will react by reversing direction.

Time is the element that will determine WHEN prices should react.

Certain price reactions are found to occur during specific times. The actual TYPE of price reaction can be anticipated, and pre-determined, by using Gann time rules.

Gann time periods last not only days or weeks but months and even years. Gann's trading year is first divided in half, equivalent to 6 months or 26 weeks. The year is then divided by eighths, and then by sixteenths. And then, after you think you understand all of this, you find that Gann's year is also divided by thirds.

There are also important time periods within the Gann year. For example, since a week is 7 days, and 7 times 7 is 49, Gann's work found that 49 is a significant number too. Important tops or bottoms may occur between the 49th and 52nd day, although an intermediate change–in–trend may occur between the 42nd and 45th day because 45 days is 1/8 of a year.

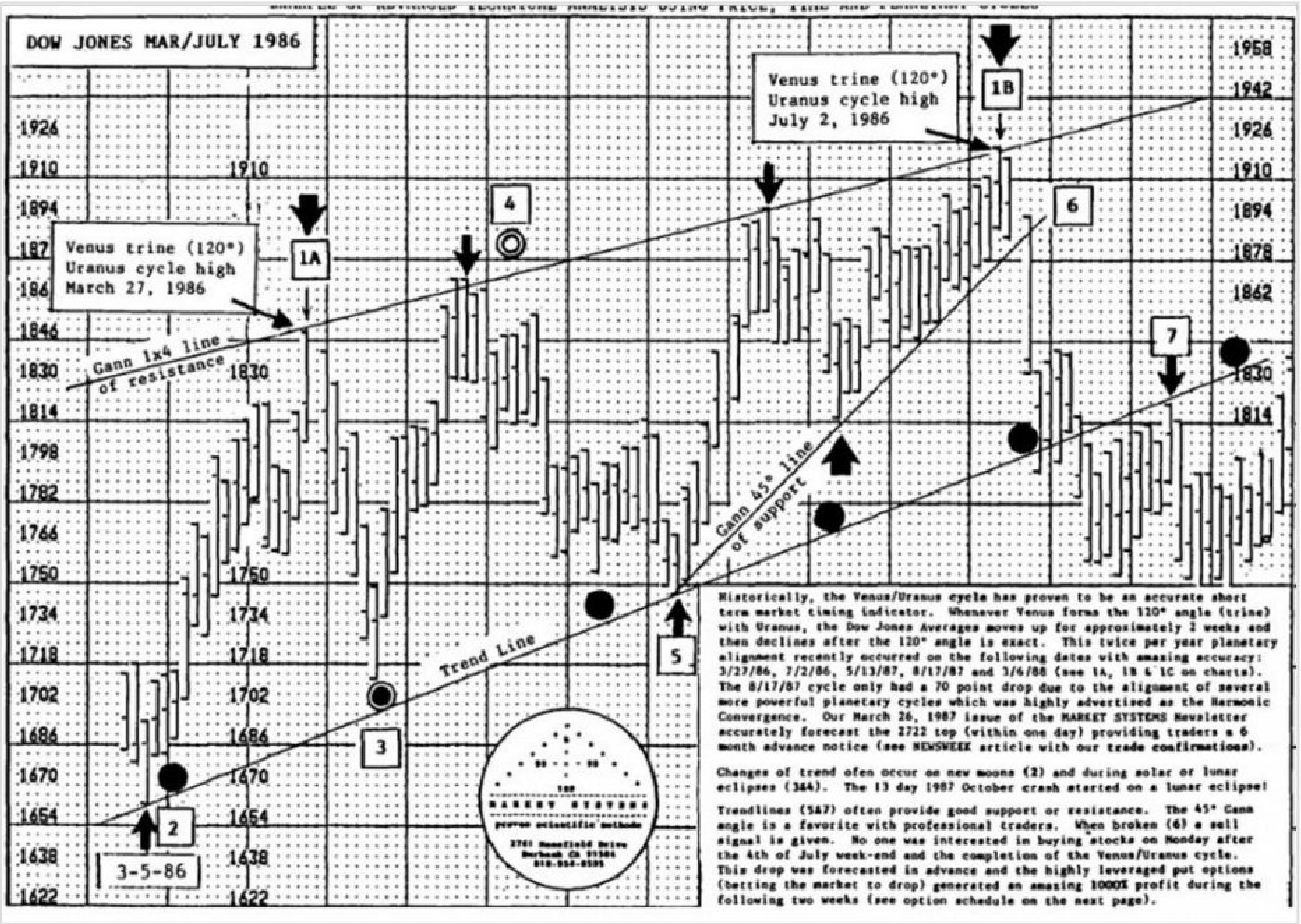
Other time periods that were important to Gann, at which a price reaction could be expected, are:

- Anniversary dates of major tops and bottoms
- 7 months after a major top or bottom for a minor reaction.
- 10 to 14 days is the length for a reaction in a normal market. If this period is exceeded, the next reaction should be expected after 28 to 30 days.

If you're not already confused, understand that Gann's year may not only be calendar, but "fiscal" as well; starting from major tops or bottoms. Gann's time rules consider many periods, including seasonality, Biblical references, and astronomical events.

Let's see a little example. This is an example of astronomical correlations on a Gann chart. One of Gann's beliefs, stemming from his "natural order" concept, is the influence of planetary movements on earthly events, such as the moon's perceived effect on tides.

This "cosmic perspective" of Gann is unlike conventional astrology, in those planetary influences, like units of price, are unique to each market.



Venus trine (120°)
Uranus cycle high
March 27, 1986

Venus trine (120°)
Uranus cycle high
July 2, 1986

Historically, the Venus/Uranus cycle has proven to be an accurate short term market timing indicator. Whenever Venus forms the 120° angle (trine) with Uranus, the Dow Jones Averages moves up for approximately 2 weeks and then declines after the 120° angle is exact. This twice per year planetary alignment recently occurred on the following dates with amazing accuracy: 3/27/86, 7/2/86, 5/13/87, 8/17/87 and 3/6/88 (see 1A, 1B & 1C on charts). The 8/17/87 cycle only had a 70 point drop due to the aligement of several more powerful planetary cycles which was highly advertised as the Harmonic Convergence. Our March 26, 1987 issue of the MARKET SYSTEMS Newsletter accurately forecast the 2722 top (within one day) providing traders a 6 month advance notice (see NEWSWEEK article with our trade confirmations).

Changes of trend ofen occur on new moons (2) and during solar or lunar eclipses (3&4). The 13 day 1987 October crash started on a lunar eclipse!

Trendlines (5&7) often provide good support or resistance. The 45° Gann angle is a favorite with professional traders. When broken (6) a sell signal is given. No one was interested in buying stocks on Monday after the 4th of July week-end and the completion of the Venus/Uranus cycle. This drop was forecasted in advance and the highly leveraged put options (betting the market to drop) generated an amazing 1000% profit during the following two weeks (see option schedule on the next page).

Conclusions

Gann was a master of his time, a personality not easy to match any time soon. No matter what others say, his secrets have not been fully discovered yet.

Gann managed, with the methods of his time, and this is quite remarkable, to create an almost perfect system. After a general view, some might consider that his system is entirely based on technical analysis and numerology. At a closer look, we discover that Gann discretely refers numerous times to elements of astrology as an important part of his system.

Gann admitted one time, when talking about astrology, that he can not reveal all aspects of his work because people are not yet prepared for this kind of information. Talking about astrology as a method of financial analysis wouldn’t have been wise in the time of 1910-1930,

Nowadays the society acknowledges the value of astrology as a science and appreciates it. This recognition is possible because of the hard work of many people that dedicated their life to researching this domain.

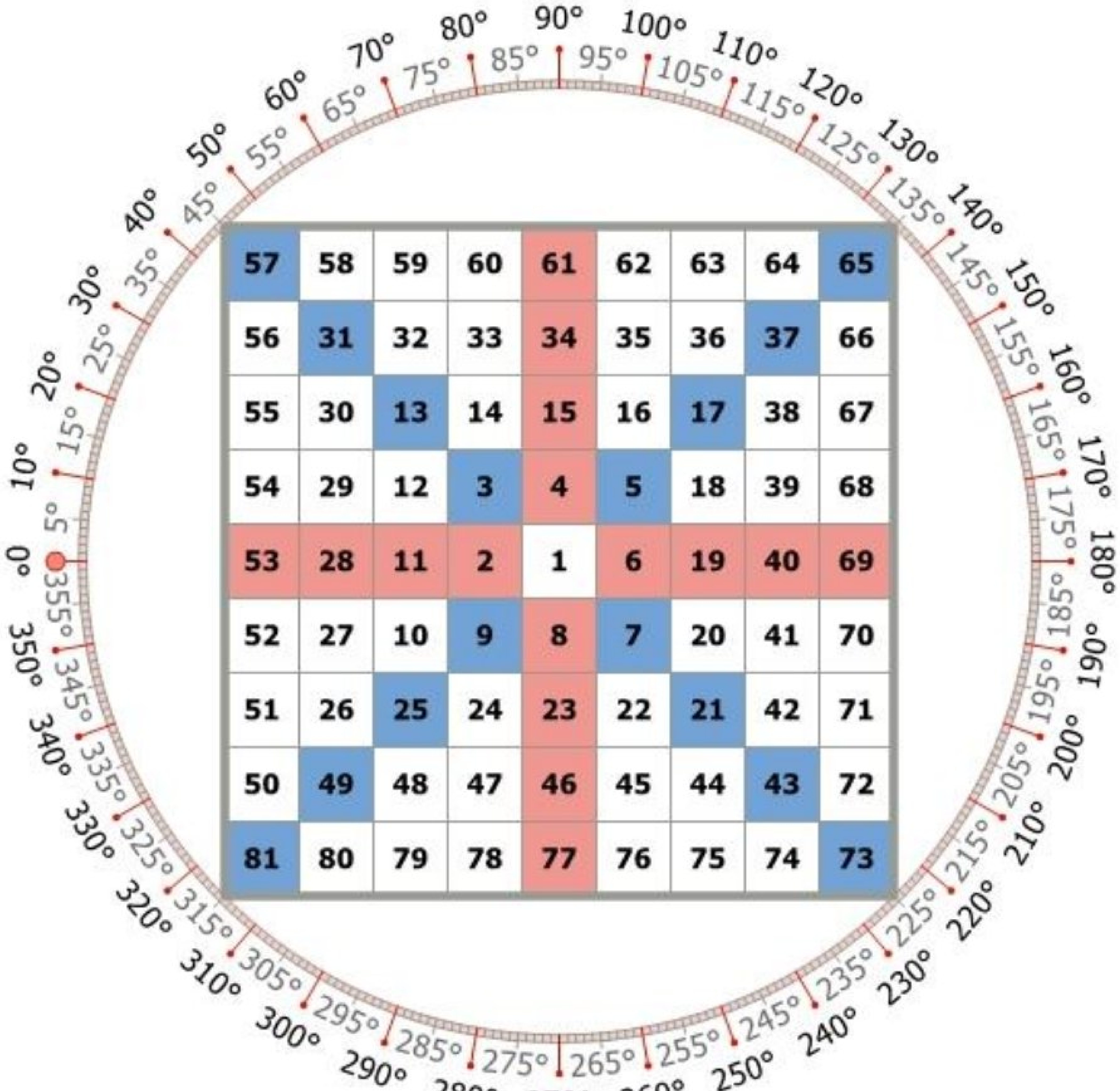
Gann had a complex system: the basis was astrology; at a higher level he used fundamental analysis and numerology; the outer layer was technical analysis. What remained to the successors was the outer layer. The depths are for those patient and courageous enough to walk his path.

The Square of Nine

W.D. Gann, a financial advisor and trader in the stock and commodity markets during the early 20th century, introduced the Square of Nine as a tool for trading and forecasting in the 1920s.

He shared the methods for utilizing this tool through his private financial seminars and later in his written trading courses.

This book is dedicated to unveiling every major technique for forecasting using the Square of Nine.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55	30	13	14	15	16	17	38	67
54	29	12	3	4	5	18	39	68
53	28	11	2	1	6	19	40	69
52	27	10	9	8	7	20	41	70
51	26	25	24	23	22	21	42	71
50	49	48	47	46	45	44	43	72
81	80	79	78	77	76	75	74	73

Throughout his teachings, W.D. Gann referred to the Square of Nine by different names, such as the "Odd Square" and the "Master Price and Time Calculator."

However, for the sake of consistency, this book solely employs the name "Square of Nine." The above image showcased on the following page, displays a fundamental Square of Nine.

It contains two sets of numbers:

- one set encircles the square's outer perimeter,
- while the second set appears on the square's face.

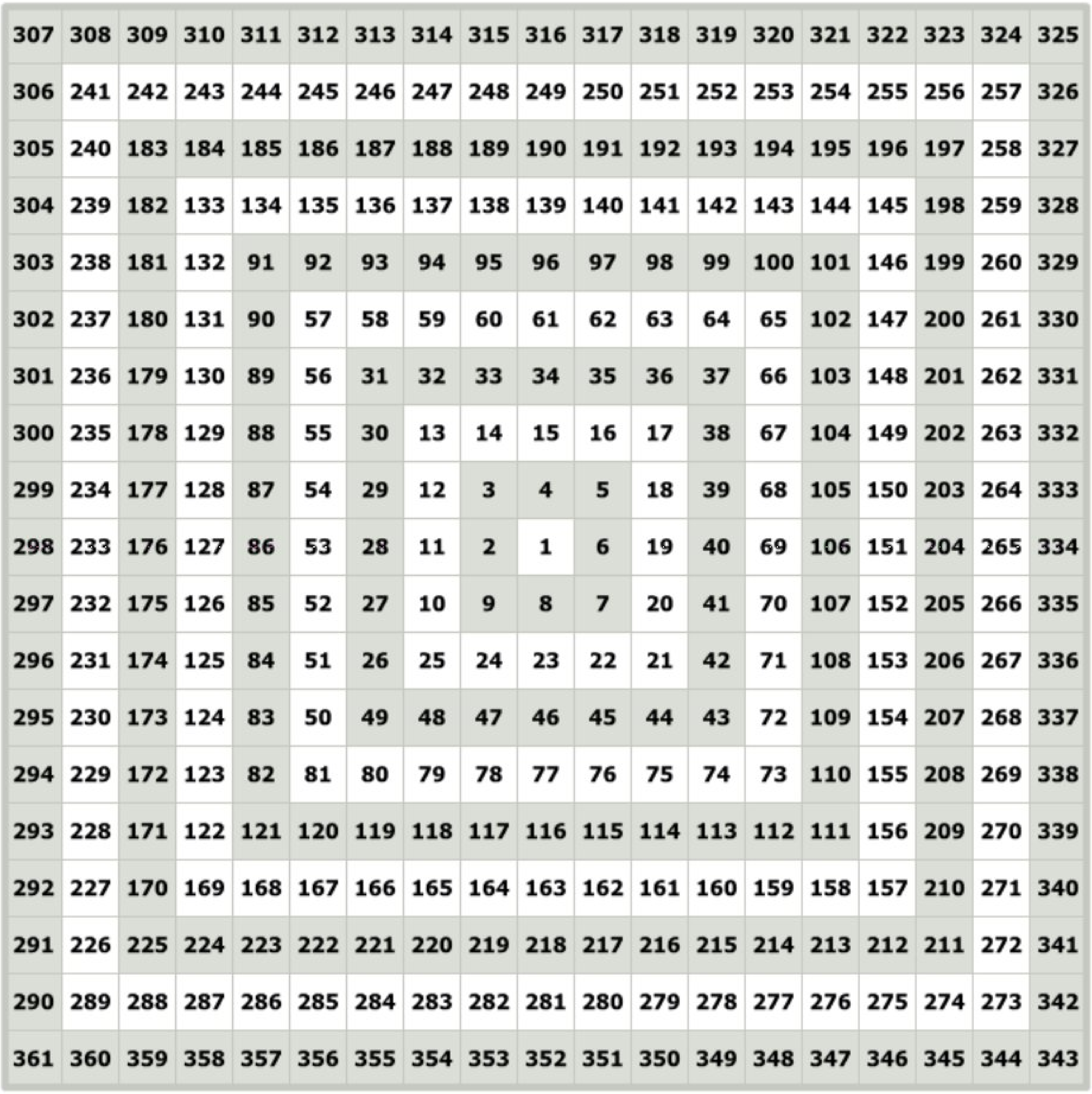
W.D. Gann positioned the 0° mark of the outer circle at the center-left and counted the degrees in a counter-clockwise direction.

On the other hand, the numbers on the face of the square progress in a clockwise manner. We will analyze Square of Nine from William Gann's perspective in more detail shortly in the next chapters.

Construction of Square of Nine

In his discussions about the 360° movement of numbers on the Square of Nine, W.D. Gann utilized the terms "square" and "cycle." We will analyze Square of Nine from William Gann’s perspective.

Here is what it’s about:



307	308	309	310	311	312	313	314	315	316	317	318	319	320	321	322	323	324	325
306	241	242	243	244	245	246	247	248	249	250	251	252	253	254	255	256	257	326
305	240	183	184	185	186	187	188	189	190	191	192	193	194	195	196	197	258	327
304	239	182	133	134	135	136	137	138	139	140	141	142	143	144	145	198	259	328
303	238	181	132	91	92	93	94	95	96	97	98	99	100	101	146	199	260	329
302	237	180	131	90	57	58	59	60	61	62	63	64	65	102	147	200	261	330
301	236	179	130	89	56	31	32	33	34	35	36	37	66	103	148	201	262	331
300	235	178	129	88	55	30	13	14	15	16	17	38	67	104	149	202	263	332
299	234	177	128	87	54	29	12	3	4	5	18	39	68	105	150	203	264	333
298	233	176	127	86	53	28	11	2	1	6	19	40	69	106	151	204	265	334
297	232	175	126	85	52	27	10	9	8	7	20	41	70	107	152	205	266	335
296	231	174	125	84	51	26	25	24	23	22	21	42	71	108	153	206	267	336
295	230	173	124	83	50	49	48	47	46	45	44	43	72	109	154	207	268	337
294	229	172	123	82	81	80	79	78	77	76	75	74	73	110	155	208	269	338
293	228	171	122	121	120	119	118	117	116	115	114	113	112	111	156	209	270	339
292	227	170	169	168	167	166	165	164	163	162	161	160	159	158	157	210	271	340
291	226	225	224	223	222	221	220	219	218	217	216	215	214	213	212	211	272	341
290	289	288	287	286	285	284	283	282	281	280	279	278	277	276	275	274	273	342
361	360	359	358	357	356	355	354	353	352	351	350	349	348	347	346	345	344	343

1. The basic form is a square.
2. The principle of making this square is very ingenious.
3. The numbers are arranged in increasing order, in a specific pattern, starting with number one set in the center.
4. We can arrange as many numbers we wish.

5. The numbers can be arranged starting from the middle, to the right and up, in a counterclockwise manner, or to the left and up, in a clockwise manner.

When setting the Square of Nine we have to consider the trend's direction.

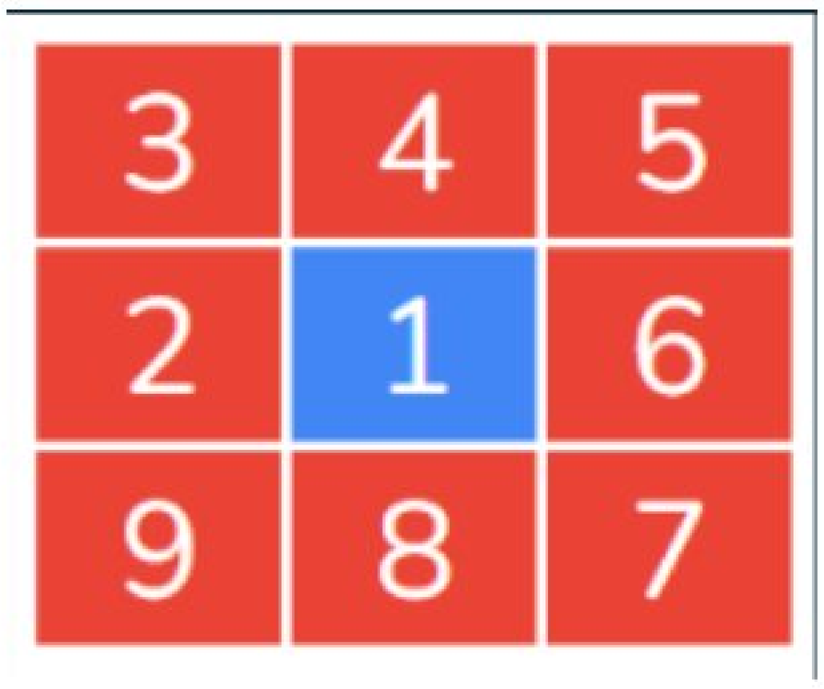
If the trend is ascending, we will arrange the numbers clockwise, if it is descending, we will arrange the numbers counterclockwise.

However, this is a norm or standard practice. Nothing enforceable and the end results do not variate based on this decision.

Construct A Basic Gann Square of 9

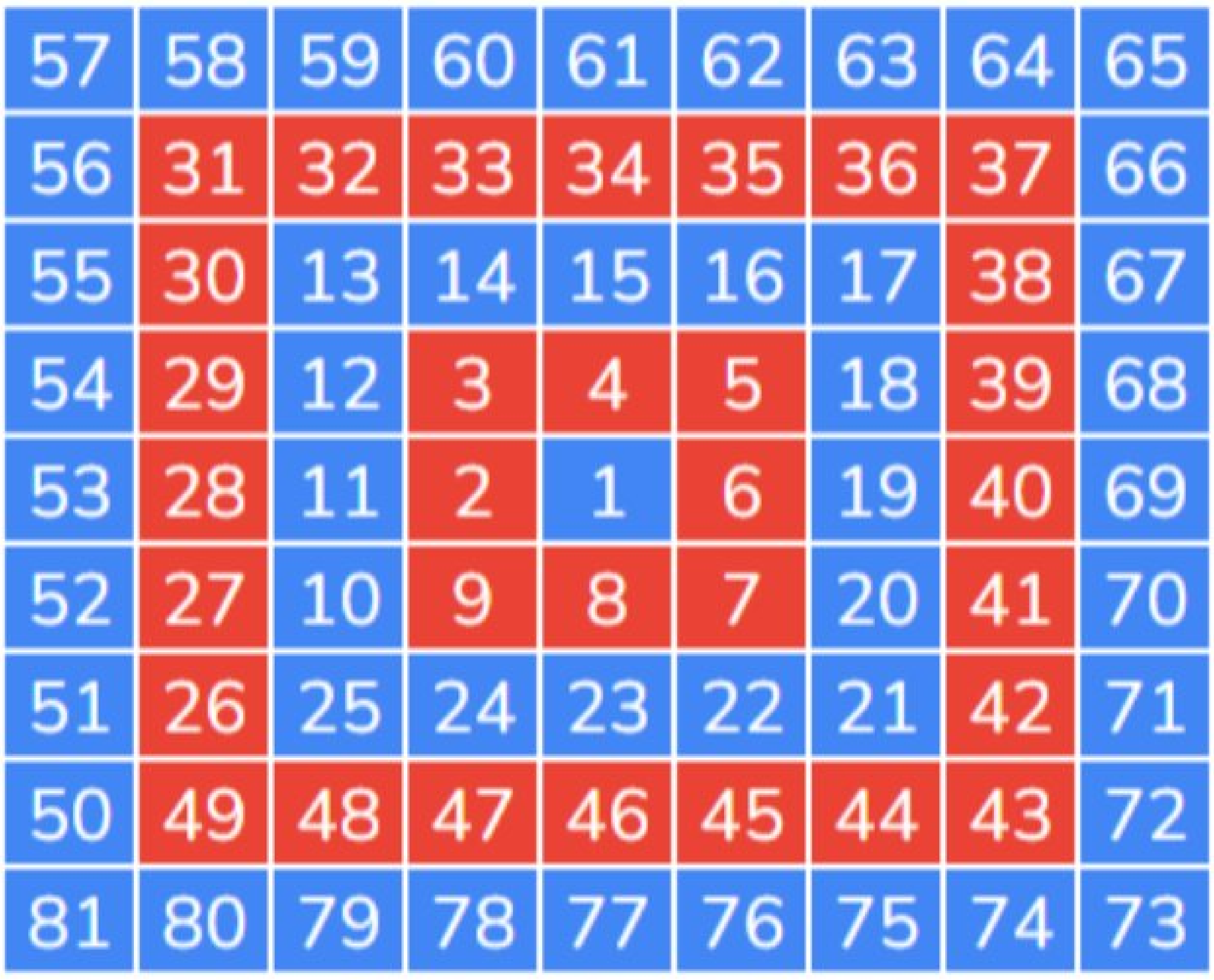
- Start with a square grid.
- Place the number 1 in the center (apex) of the grid.

First Cycle:



3	4	5
2	1	6
9	8	7

- Place the number 2 immediately to the left of 1. This starts the First Cycle.
- Continue placing numbers in a clockwise spiral pattern around the center, moving outward.
- The first complete cycle around the center adds 8 more numbers to the grid.
- The first cycle completes with the number 9.



57	58	59	60	61	62	63	64	65
56	31	32	33	34	35	36	37	66
55	30	13	14	15	16	17	38	67
54	29	12	3	4	5	18	39	68
53	28	11	2	1	6	19	40	69
52	27	10	9	8	7	20	41	70
51	26	25	24	23	22	21	42	71
50	49	48	47	46	45	44	43	72
81	80	79	78	77	76	75	74	73

The Next Cycles:

- The 2nd cycle starts at 10 and goes up to 25.
- The 3rd cycle starts at 26 and goes up to 49.
- The 4th cycle starts at 50 and goes up to 81.

And, So on...

The Word "Square"

In this context, the term "squaring" doesn't involve calculating the mathematical square of a number.

Rather, it refers to the spiral-like mathematical arrangement of numbers within a Square Grid.

"Size" of Gann Square of 9

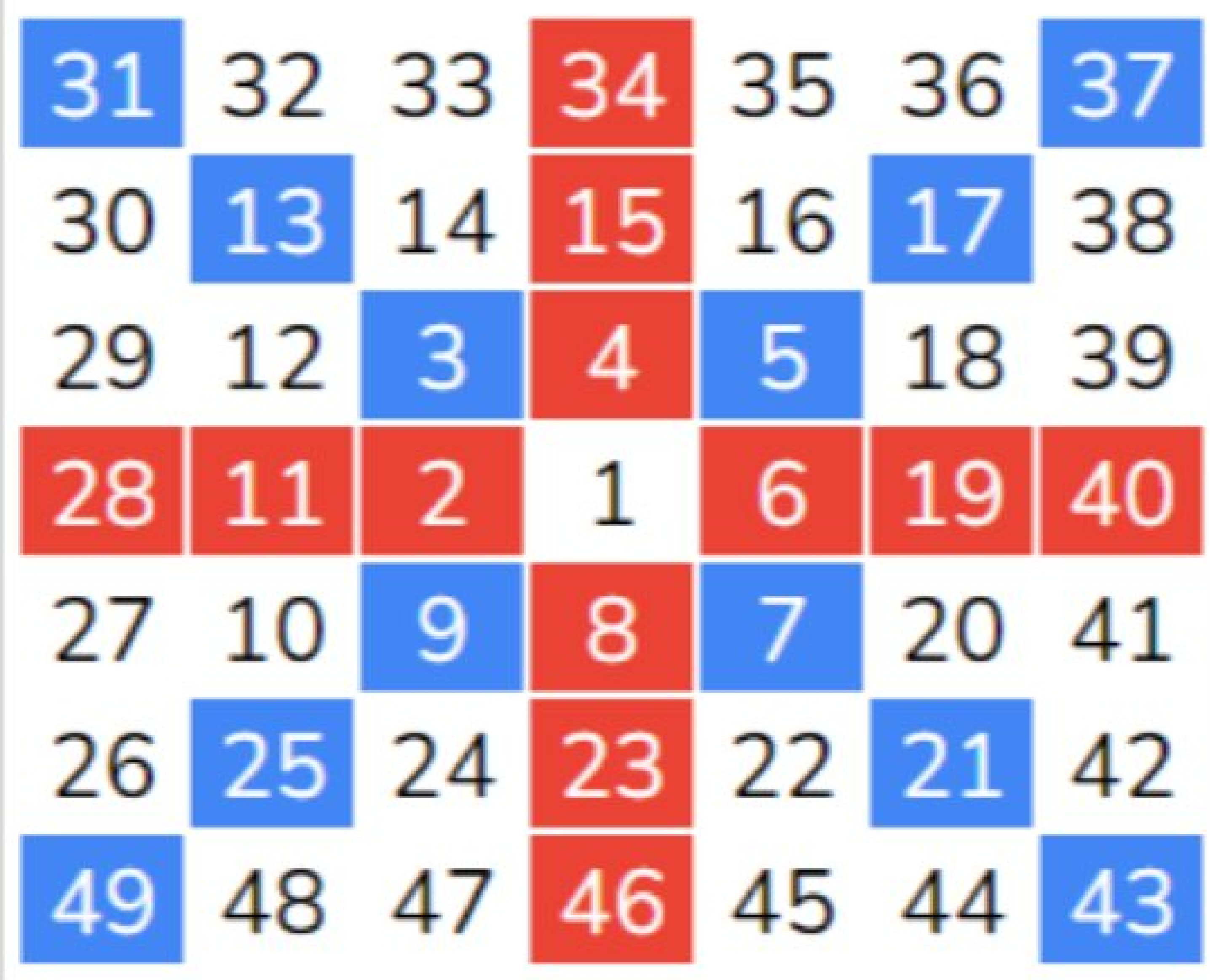
Now comes the concept of Size -

In the above, The Gann Square of 9 is said to have a size of 5. It is because it has 5 levels of spirals.

The fact that It is a 9x9 grid does not mean anything with Gann Square of 9. It is a 9x9 grids having 81 numbers because a Gann Square of 9 with size 5 will have a grid of 5th odd number. 5th odd number is 9.

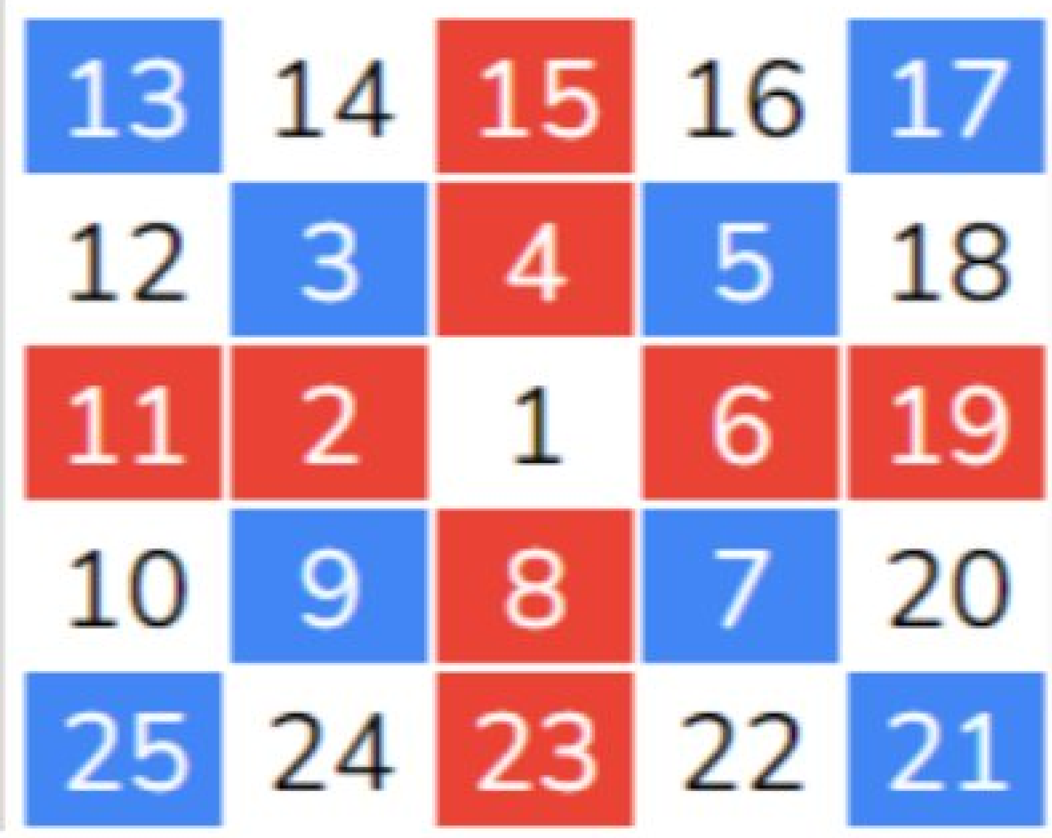
Similarly,

A Gann Square of 9 with size 10 will have a grid of 10th odd number. 10th odd number is 19. So, it is a grid of 19x19 with 361 total numbers in it.



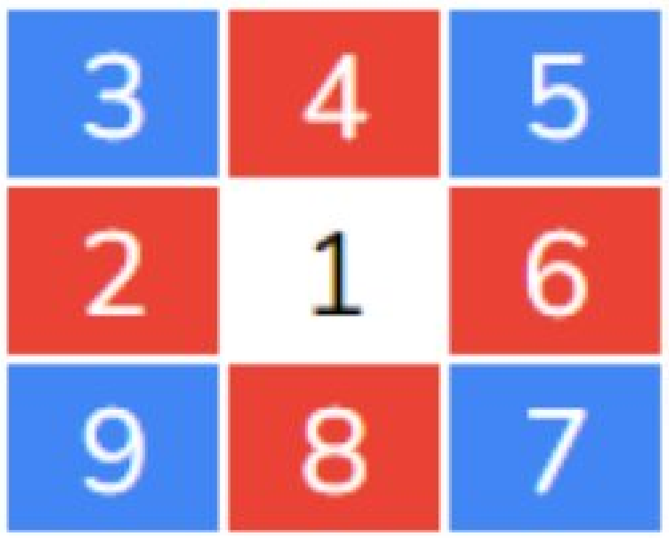
31	32	33	34	35	36	37
30	13	14	15	16	17	38
29	12	3	4	5	18	39
28	11	2	1	6	19	40
27	10	9	8	7	20	41
26	25	24	23	22	21	42
49	48	47	46	45	44	43

Similarly, The above Gann Square of 9 has a size of 4.



13	14	15	16	17
12	3	4	5	18
11	2	1	6	19
10	9	8	7	20
25	24	23	22	21

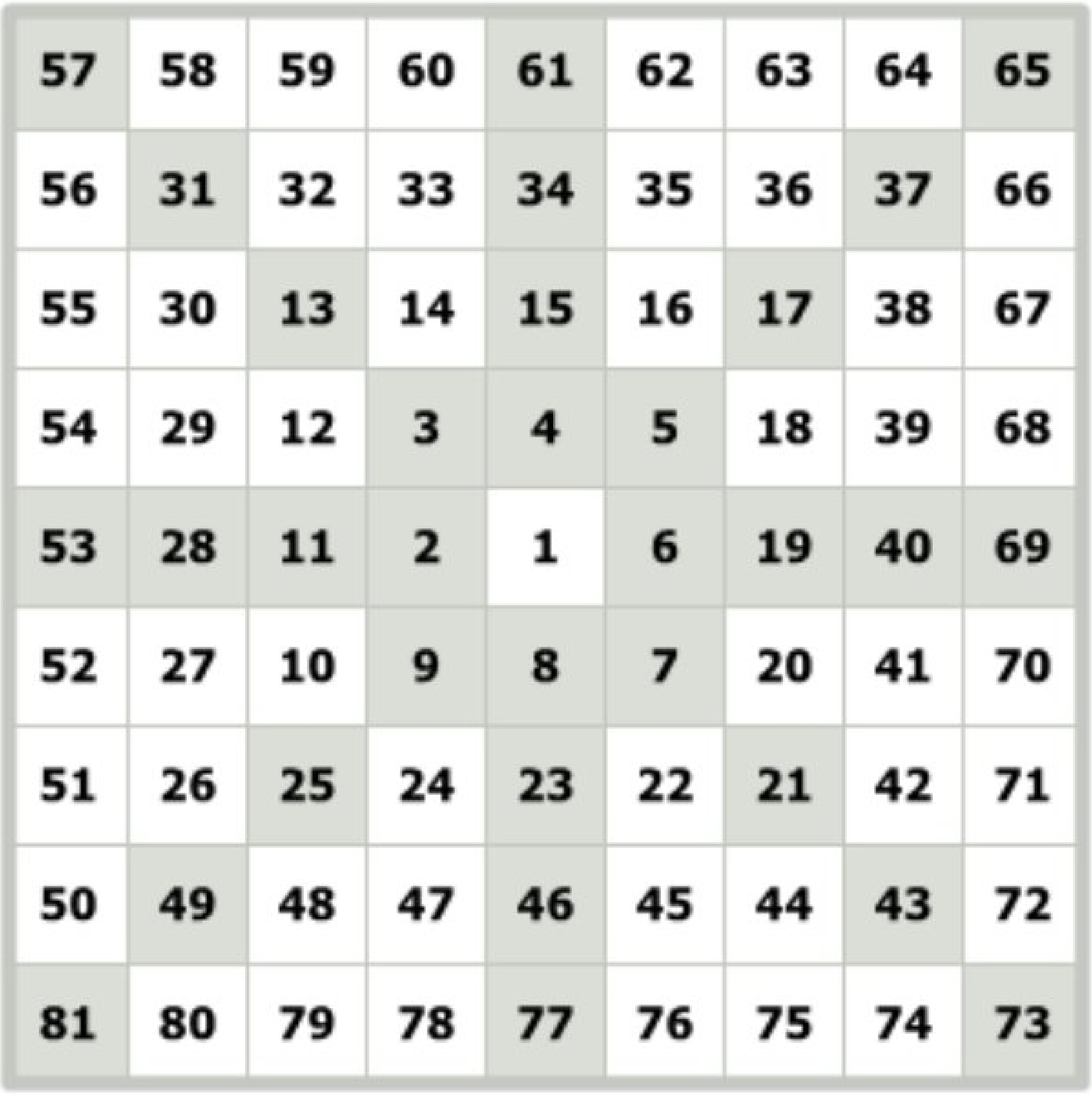
This one has a size of 3.



3	4	5
2	1	6
9	8	7

This one has a size of 2.

"Increment" in Gann Square of 9



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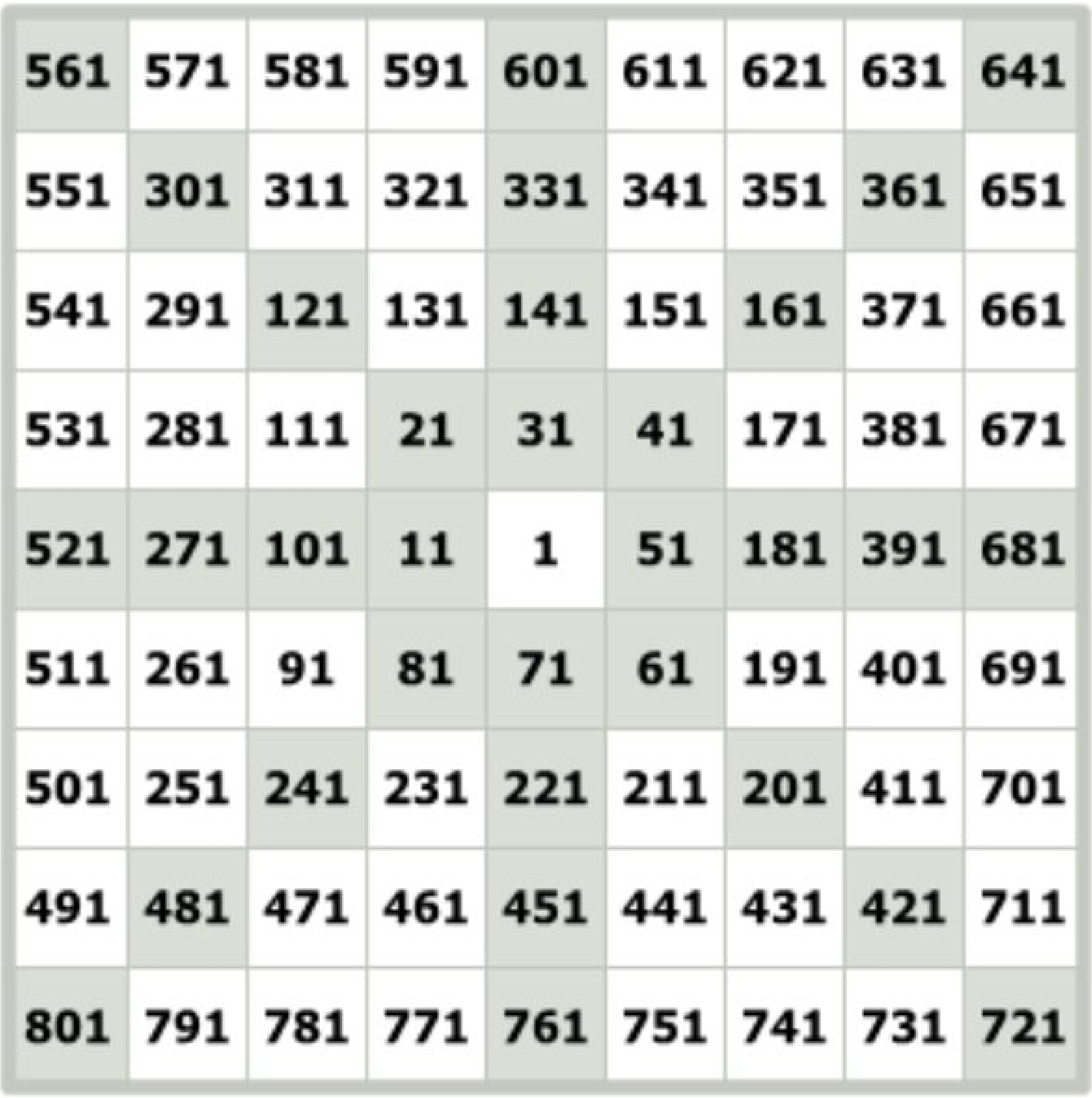
53	28	11	2	1	6	19	40	69
52	27	10	9	8	7	20	41	70
51	26	25	24	23	22	21	42	71
50	49	48	47	46	45	44	43	72
81	80	79	78	77	76	75	74	73

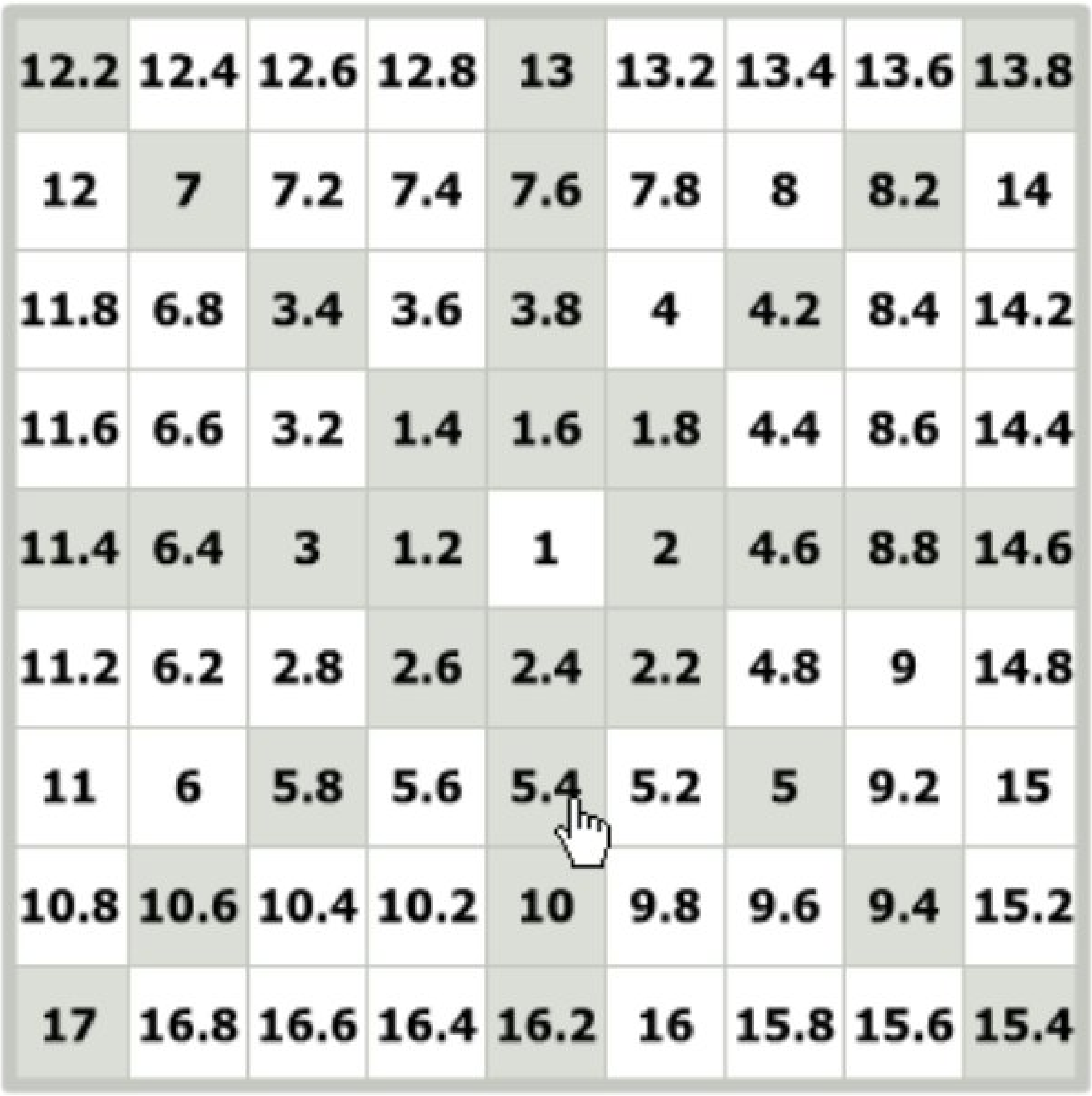
Now comes the concept of Increment -

In the above, The Gann Square of 9 is said to have an increment of 1. It is because it is increasing by 1 in terms of value in each step.



561	571	581	591	601	611	621	631	641
551	301	311	321	331	341	351	361	651
541	291	121	131	141	151	161	371	661
531	281	111	21	31	41	171	381	671
521	271	101	11	1	51	181	391	681
511	261	91	81	71	61	191	401	691
501	251	241	231	221	211	201	411	701
491	481	471	461	451	441	431	421	711
801	791	781	771	761	751	741	731	721

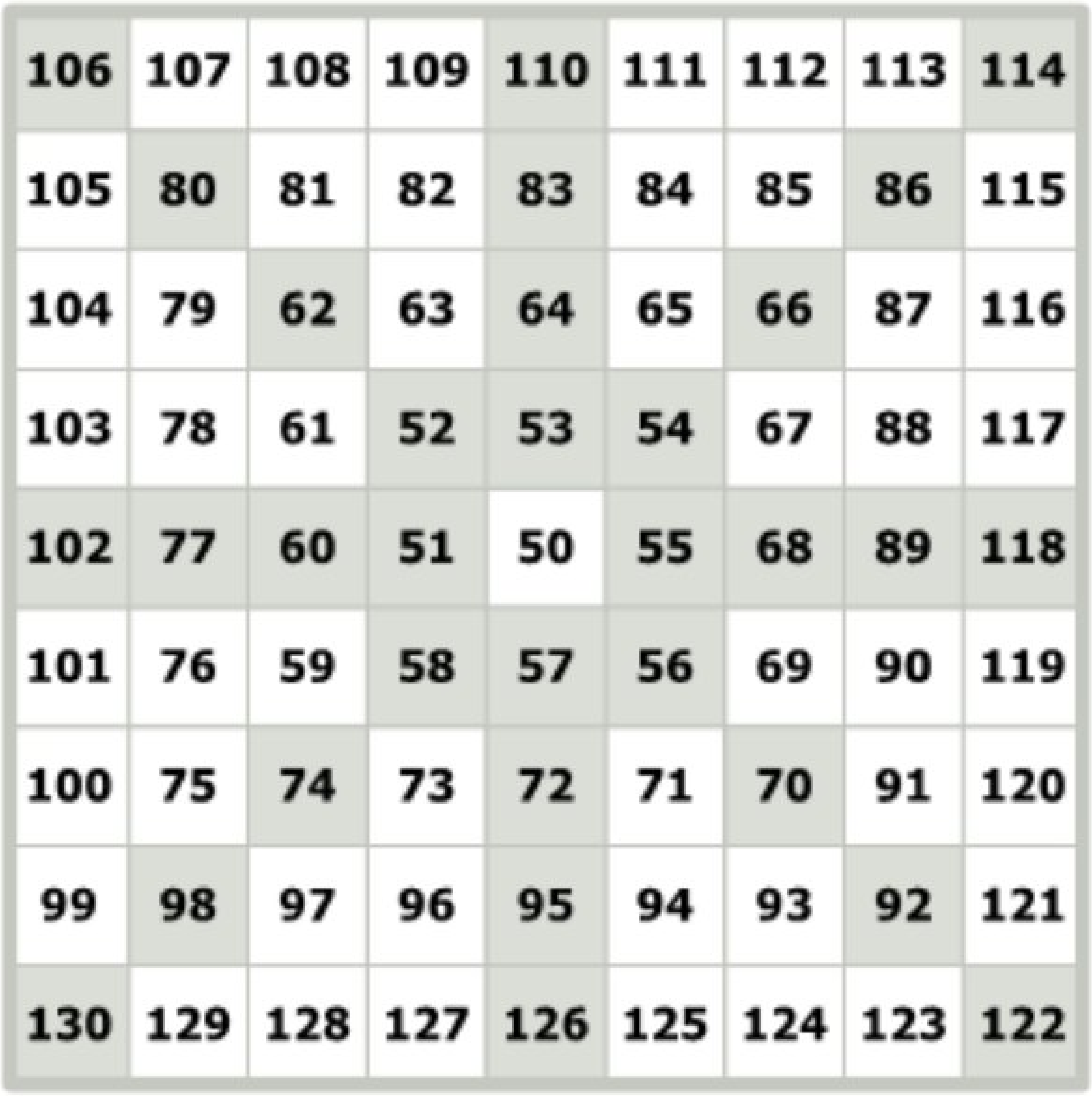
Similarly, the above Gann Square of 9 has a increment of 10.



12.2	12.4	12.6	12.8	13	13.2	13.4	13.6	13.8
12	7	7.2	7.4	7.6	7.8	8	8.2	14
11.8	6.8	3.4	3.6	3.8	4	4.2	8.4	14.2
11.6	6.6	3.2	1.4	1.6	1.8	4.4	8.6	14.4
11.4	6.4	3	1.2	1	2	4.6	8.8	14.6
11.2	6.2	2.8	2.6	2.4	2.2	4.8	9	14.8
11	6	5.8	5.6	5.4	5.2	5	9.2	15
10.8	10.6	10.4	10.2	10	9.8	9.6	9.4	15.2
17	16.8	16.6	16.4	16.2	16	15.8	15.6	15.4

Similarly, the above Gann Square of 9 has a increment of .2.

Starting Point in Gann Square of 9



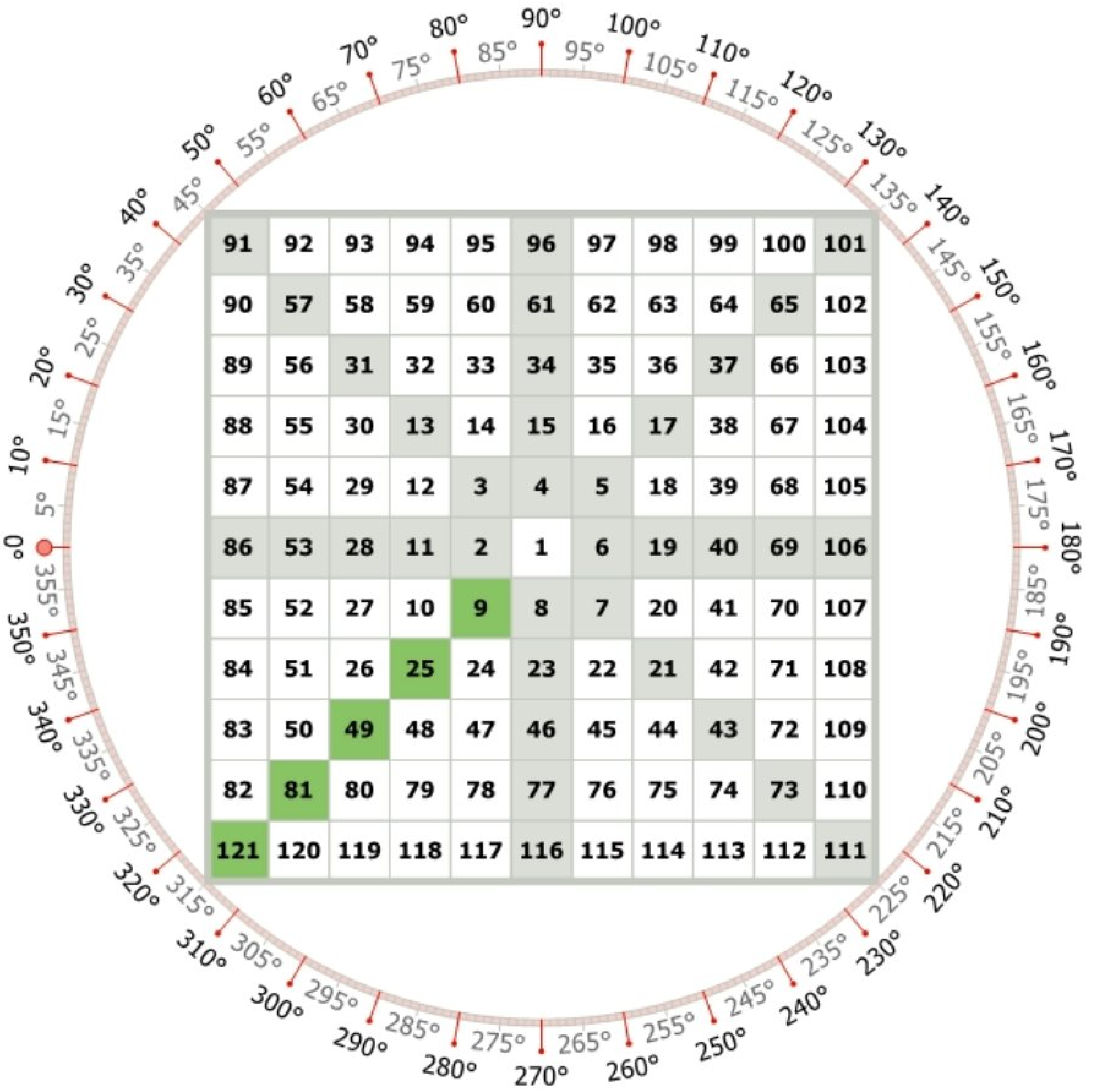
106	107	108	109	110	111	112	113	114
105	80	81	82	83	84	85	86	115
104	79	62	63	64	65	66	87	116
103	78	61	52	53	54	67	88	117
102	77	60	51	50	55	68	89	118
101	76	59	58	57	56	69	90	119
100	75	74	73	72	71	70	91	120
99	98	97	96	95	94	93	92	121
130	129	128	127	126	125	124	123	122

In the above, The Gann Square of 9 is said to have an increment of 1 and it started from the number 50.

- It can start from any number.
- It can have any increment.

With reference of Pyramid's Apex Point, **The Starting Point is called said Apex Value**

Now Notice -



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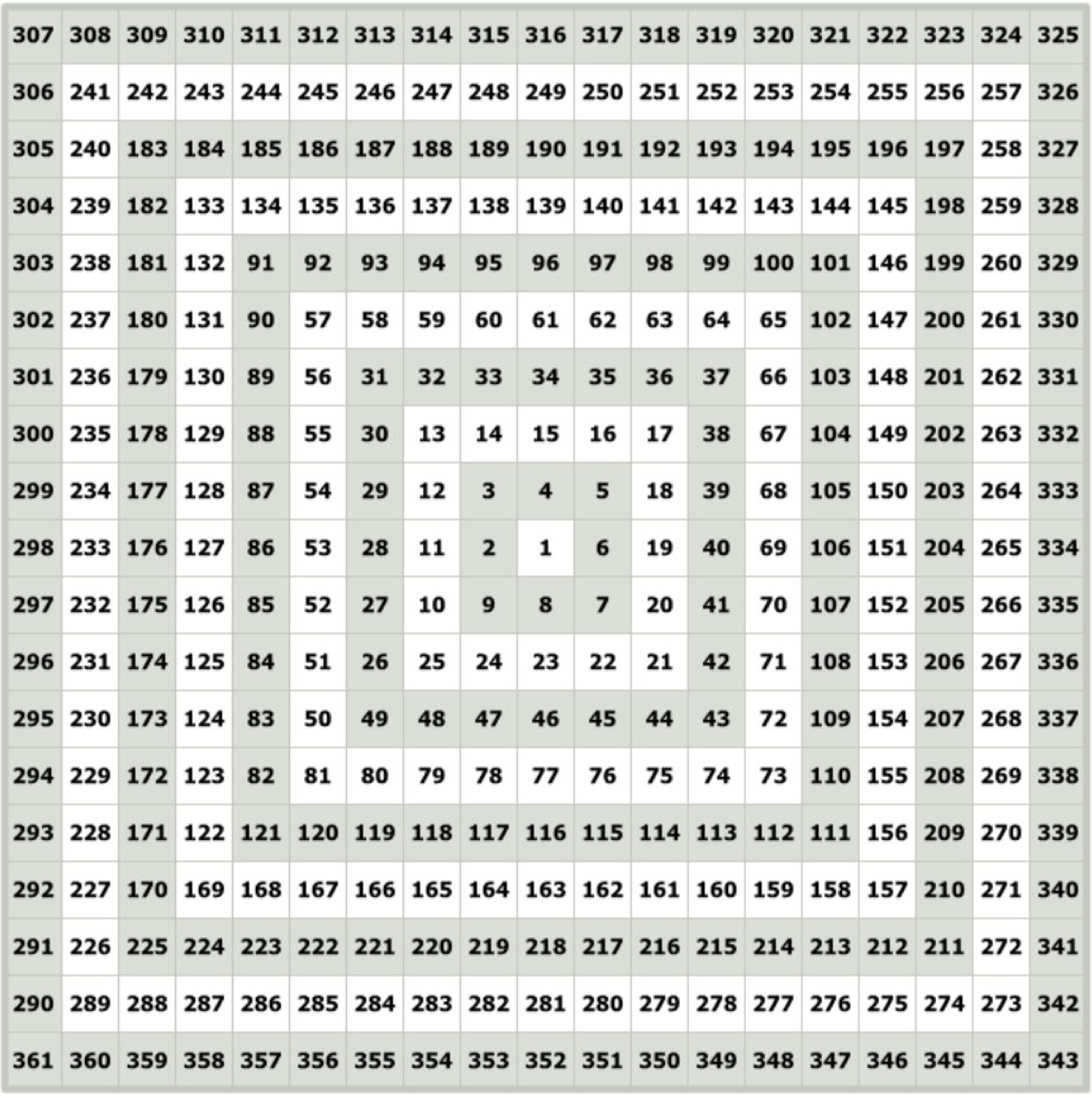
91	92	93	94	95	96	97	98	99	100	101
90	57	58	59	60	61	62	63	64	65	102
89	56	31	32	33	34	35	36	37	66	103
88	55	30	13	14	15	16	17	38	67	104
87	54	29	12	3	4	5	18	39	68	105
86	53	28	11	2	1	6	19	40	69	106
85	52	27	10	9	8	7	20	41	70	107
84	51	26	25	24	23	22	21	42	71	108
83	50	49	48	47	46	45	44	43	72	109
82	81	80	79	78	77	76	75	74	73	110
121	120	119	118	117	116	115	114	113	112	111

For instance, in the above Figure, the progression from 26 to 49 or 50 to 81 or 52 to 121 or 122 to 169 constitutes a single 360° movement, which Gann referred to as a square or cycle.

However, due to the potential confusion arising from the multiple meanings of these terms, this book opts to use the term "rotation" to denote a complete 360° movement on the Square of Nine.



307	308	309	310	311	312	313	314	315	316	317	318	319	320	321	322	323	324	325
306	241	242	243	244	245	246	247	248	249	250	251	252	253	254	255	256	257	326
305	240	183	184	185	186	187	188	189	190	191	192	193	194	195	196	197	258	327
304	239	182	133	134	135	136	137	138	139	140	141	142	143	144	145	198	259	328
303	238	181	132	91	92	93	94	95	96	97	98	99	100	101	146	199	260	329
302	237	180	131	90	57	58	59	60	61	62	63	64	65	102	147	200	261	330
301	236	179	130	89	56	31	32	33	34	35	36	37	66	103	148	201	262	331
300	235	178	129	88	55	30	13	14	15	16	17	38	67	104	149	202	263	332
299	234	177	128	87	54	29	12	3	4	5	18	39	68	105	150	203	264	333
298	233	176	127	86	53	28	11	2	1	6	19	40	69	106	151	204	265	334
297	232	175	126	85	52	27	10	9	8	7	20	41	70	107	152	205	266	335
296	231	174	125	84	51	26	25	24	23	22	21	42	71	108	153	206	267	336
295	230	173	124	83	50	49	48	47	46	45	44	43	72	109	154	207	268	337
294	229	172	123	82	81	80	79	78	77	76	75	74	73	110	155	208	269	338
293	228	171	122	121	120	119	118	117	116	115	114	113	112	111	156	209	270	339
292	227	170	169	168	167	166	165	164	163	162	161	160	159	158	157	210	271	340
291	226	225	224	223	222	221	220	219	218	217	216	215	214	213	212	211	272	341
290	289	288	287	286	285	284	283	282	281	280	279	278	277	276	275	274	273	342
361	360	359	358	357	356	355	354	353	352	351	350	349	348	347	346	345	344	343

Each rotation is represented by alternating backgrounds of white and gray. W.D. Gann characterized a rotation by the highest number within that rotation, which consistently concludes the sequence. For instance, the rotation spanning from 82 to 121 is designated as the rotation concluding with the number 121, or the rotation of 121.

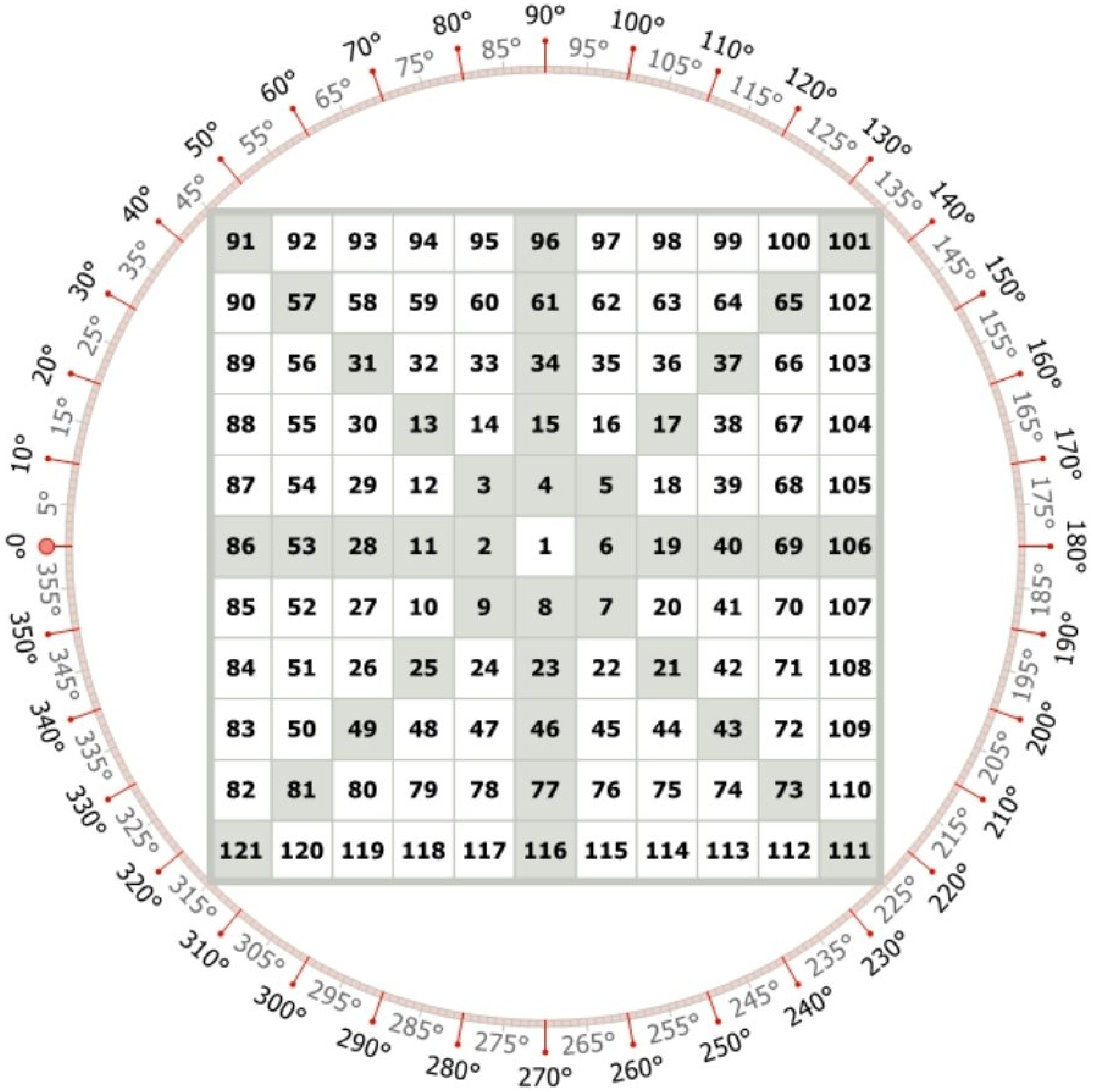
W.D. Gann constructed his Square of Nine on graph paper, with each number allocated to a specific graph square. In this context, a graph square housing a single number is referred to as a "cell."

In the Square of Nine depicted above,

- It has started from 1 and got increased by 1 in the next steps.
- So, the number 147 occupies cell 147.

In the previous examples of the Square of Nine presented, the numbers located on the square's surface follow a clockwise rotational pattern. A closer examination of W.D. Gann's private work uncovers a handful of instances where he constructed Square of Nine charts with a counterclockwise rotation.

On this page, you'll find four straightforward Square of Nine depictions.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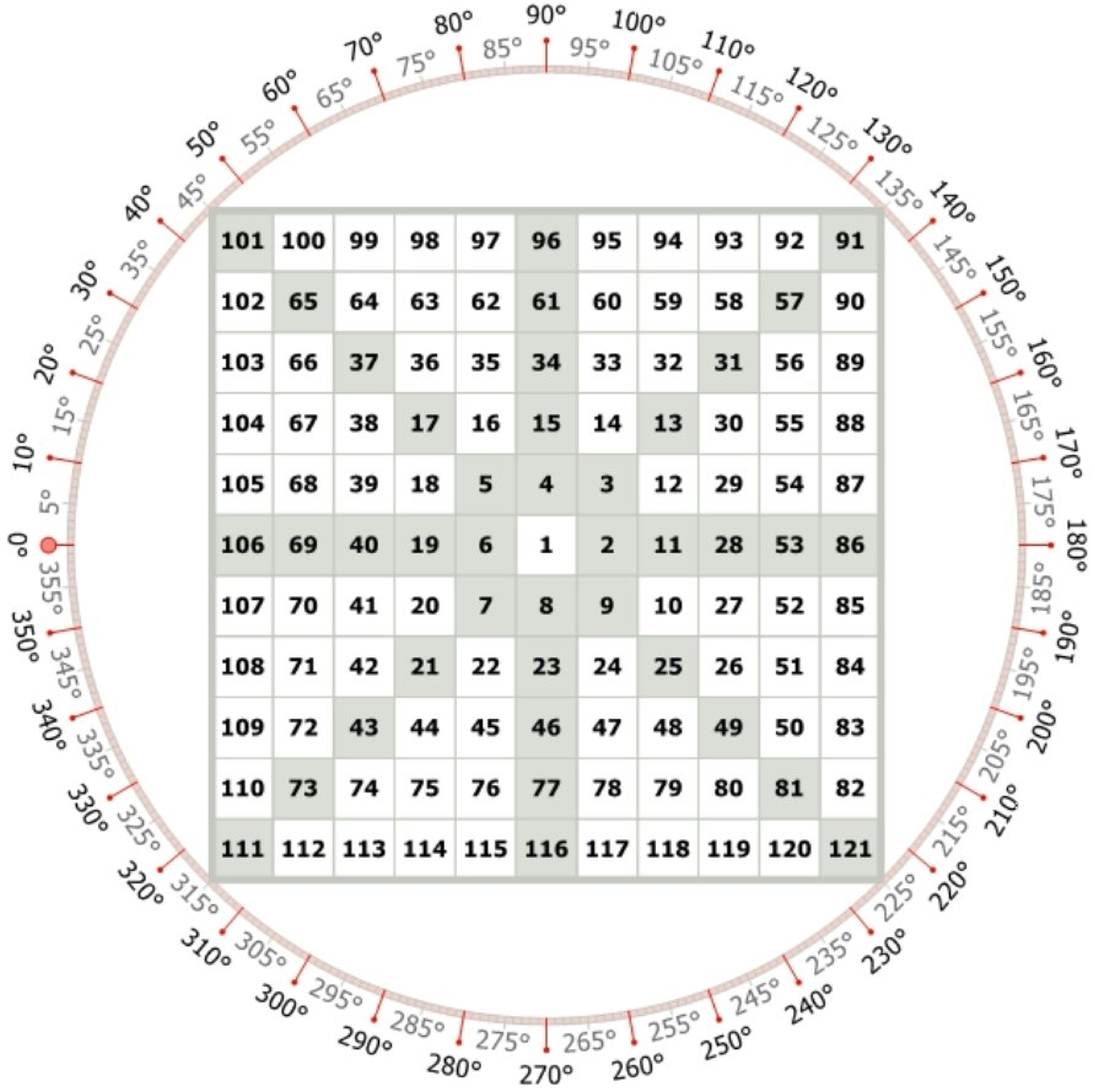
91	92	93	94	95	96	97	98	99	100	101
90	57	58	59	60	61	62	63	64	65	102
89	56	31	32	33	34	35	36	37	66	103
88	55	30	13	14	15	16	17	38	67	104
87	54	29	12	3	4	5	18	39	68	105
86	53	28	11	2	1	6	19	40	69	106
85	52	27	10	9	8	7	20	41	70	107
84	51	26	25	24	23	22	21	42	71	108
83	50	49	48	47	46	45	44	43	72	109
82	81	80	79	78	77	76	75	74	73	110
121	120	119	118	117	116	115	114	113	112	111

This figure of Gann Square of 9 illustrates - Numbers moving in a clockwise rotation and Angles moving in clockwise rotation.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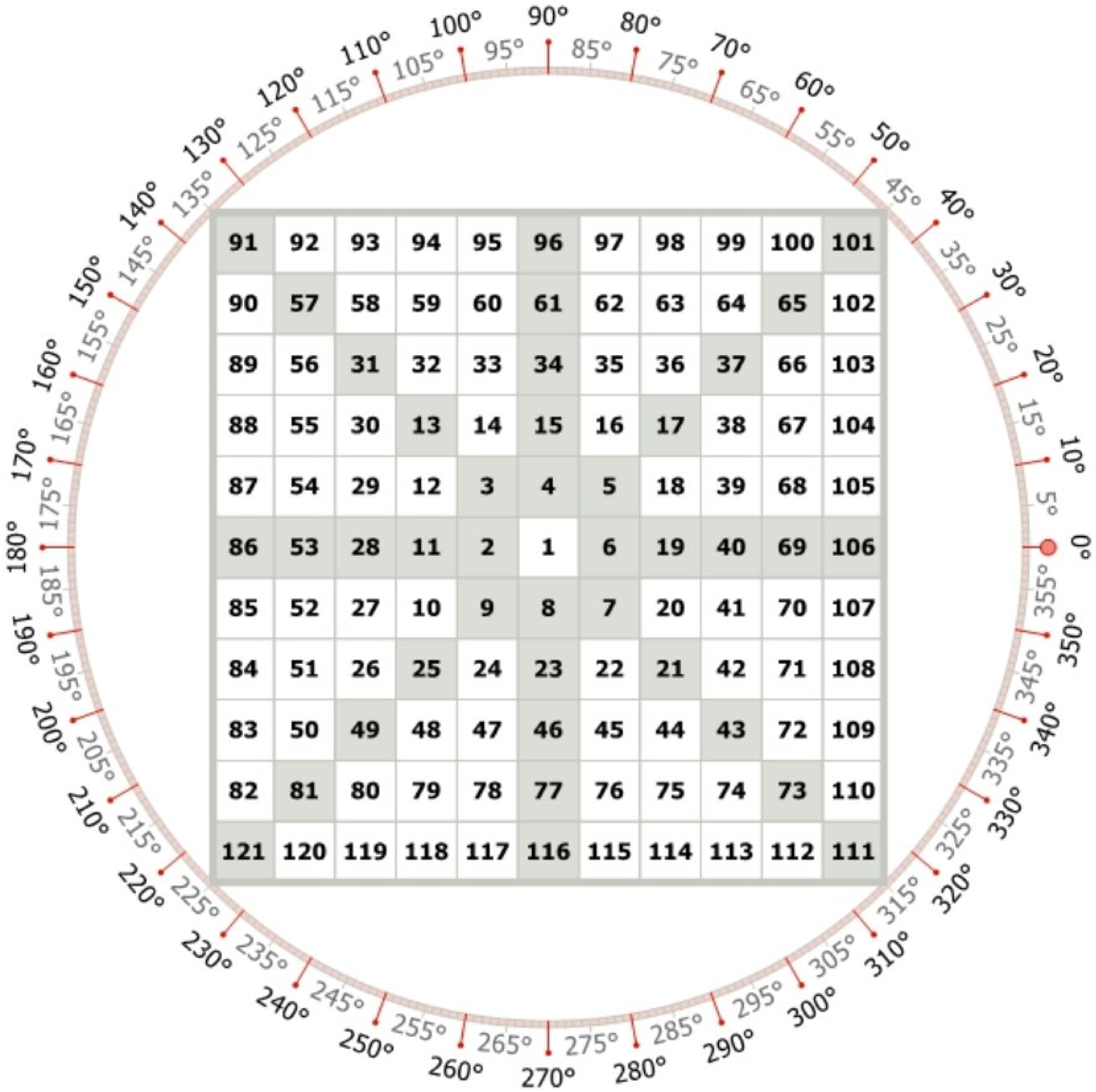
101	100	99	98	97	96	95	94	93	92	91
102	65	64	63	62	61	60	59	58	57	90
103	66	37	36	35	34	33	32	31	56	89
104	67	38	17	16	15	14	13	30	55	88
105	68	39	18	5	4	3	12	29	54	87
106	69	40	19	6	1	2	11	28	53	86
107	70	41	20	7	8	9	10	27	52	85
108	71	42	21	22	23	24	25	26	51	84
109	72	43	44	45	46	47	48	49	50	83
110	73	74	75	76	77	78	79	80	81	82
111	112	113	114	115	116	117	118	119	120	121

This figure of Gann Square of 9 illustrates - Numbers moving in an anticlockwise rotation and Angles moving in clockwise rotation.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91	92	93	94	95	96	97	98	99	100	101
90	57	58	59	60	61	62	63	64	65	102
89	56	31	32	33	34	35	36	37	66	103
88	55	30	13	14	15	16	17	38	67	104
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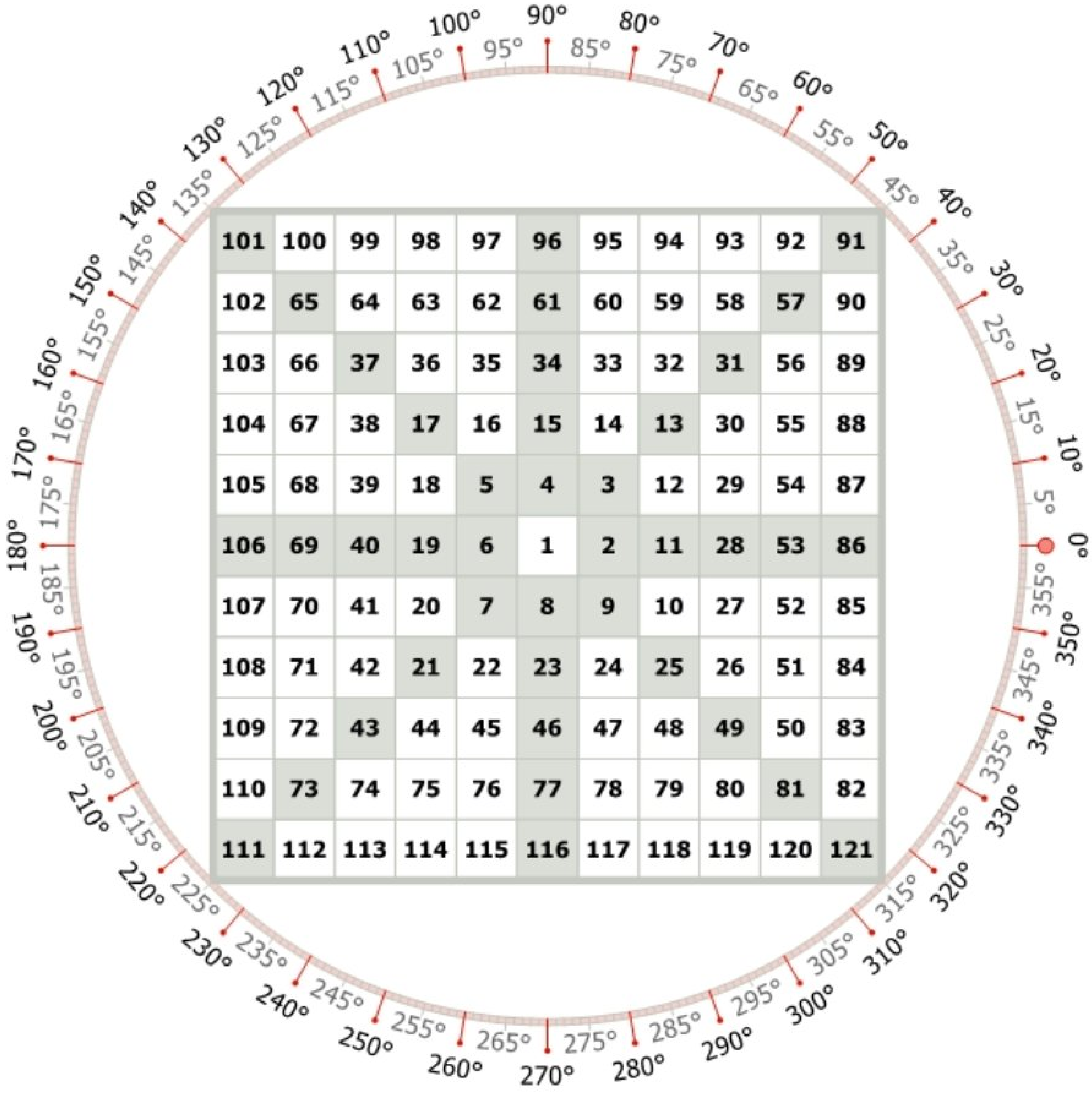
84	51	26	25	24	23	22	21	42	71	108
83	50	49	48	47	46	45	44	43	72	109
82	81	80	79	78	77	76	75	74	73	110
121	120	119	118	117	116	115	114	113	112	111

This figure of Gann Square of 9 illustrates - Numbers moving in a clockwise rotation and Angles moving in an anticlockwise rotation.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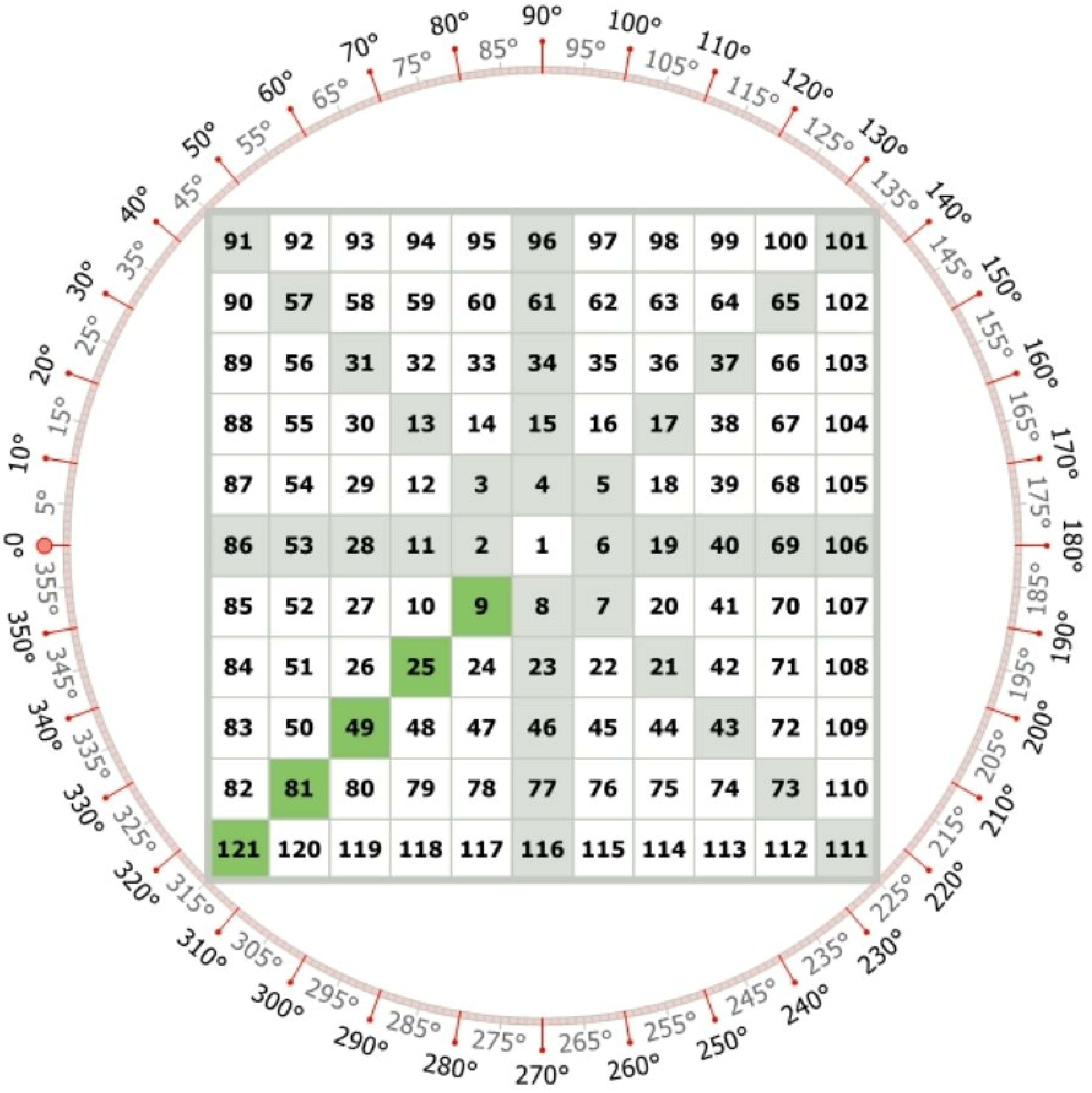
101	100	99	98	97	96	95	94	93	92	91
102	65	64	63	62	61	60	59	58	57	90
103	66	37	36	35	34	33	32	31	56	89
104	67	38	17	16	15	14	13	30	55	88
105	68	39	18	5	4	3	12	29	54	87
106	69	40	19	6	1	2	11	28	53	86
107	70	41	20	7	8	9	10	27	52	85
108	71	42	21	22	23	24	25	26	51	84
109	72	43	44	45	46	47	48	49	50	83
110	73	74	75	76	77	78	79	80	81	82
111	112	113	114	115	116	117	118	119	120	121

This figure of Gann Square of 9 illustrates - Numbers moving in an anticlockwise rotation and Angles moving in an anticlockwise rotation.

While W.D. Gann mostly designed Square of Nine charts to move in a clockwise manner, a thorough investigation into both clockwise and counterclockwise movements was carried out. Surprisingly, the findings showed that the outcomes are quite similar regardless of the direction.

To ensure simplicity and coherence, this book mostly sticks to the clockwise rotation, which is what W.D. Gann himself often preferred.

Square of Odds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91	92	93	94	95	96	97	98	99	100	101
90	57	58	59	60	61	62	63	64	65	102
89	56	31	32	33	34	35	36	37	66	103
88	55	30	13	14	15	16	17	38	67	104
87	54	29	12	3	4	5	18	39	68	105
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85	52	27	10	9	8	7	20	41	70	107
84	51	26	25	24	23	22	21	42	71	108
83	50	49	48	47	46	45	44	43	72	109
82	81	80	79	78	77	76	75	74	73	110
121	120	119	118	117	116	115	114	113	112	111

After arranging the numbers, we can observe some special similarities forming. For example, on one diagonal we have the numbers 1, 9, 25, 49, 81, 121, 169 and so on.

These numbers are marked in green color in the above image.

Notably, 9 is the square of 3 (3 multiplied by 3 equals 9).

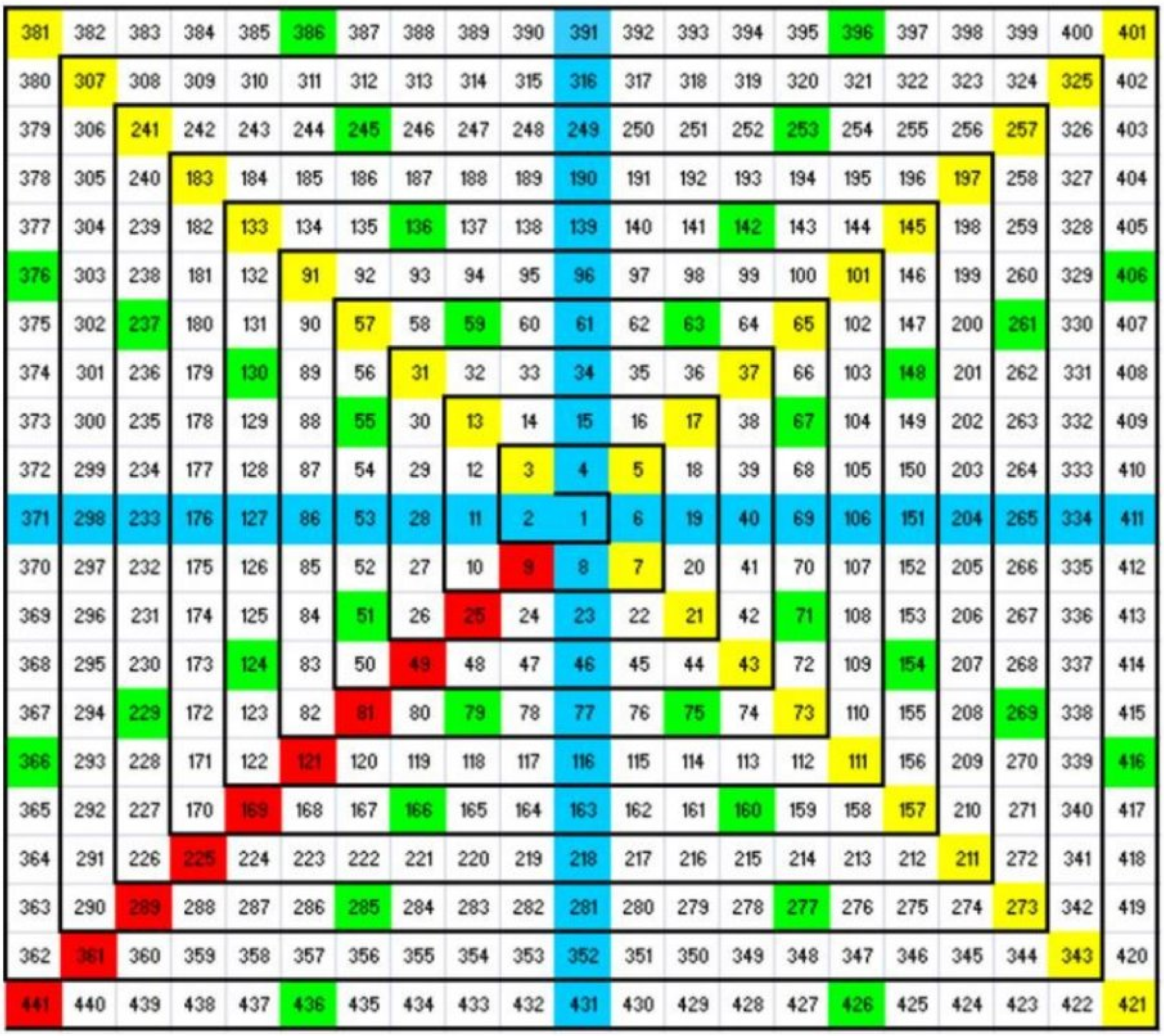
The subsequent numbers in this sequence represent the squares odd numbers which are 5, 7, 9, and 11.

It's worth highlighting that the squares of odd numbers are consistently aligned with the lower left corners in each rotation. It means - These odd number squares always occupy the final position within their respective rotations.

- 1^1 = 1
- 3^3 = 9
- 5^5 = 25
- 7^7 = 49
- 9^9 = 81
- 11^11 = 121

This is called "Square of Odd" Property of Gann Square of Nine.

Gann Wheel/ Gann Pyramid



381	382	383	384	385	386	387	388	389	390	391	392	393	394	395	396	397	398	399	400	401
380	307	308	309	310	311	312	313	314	315	316	317	318	319	320	321	322	323	324	325	402
379	306	241	242	243	244	245	246	247	248	249	250	251	252	253	254	255	256	257	326	403
378	305	240	183	184	185	186	187	188	189	190	191	192	193	194	195	196	197	258	327	404
377	304	239	182	133	134	135	136	137	138	139	140	141	142	143	144	145	198	259	328	405
376	303	238	181	132	91	92	93	94	95	96	97	98	99	100	101	146	199	260	329	406
375	302	237	180	131	90	57	58	59	60	61	62	63	64	65	102	147	200	261	330	407
374	301	236	179	130	89	56	31	32	33	34	35	36	37	66	103	148	201	262	331	408
373	300	235	178	129	88	55	30	13	14	15	16	17	38	67	104	149	202	263	332	409
372	299	234	177	128	87	54	29	12	3	4	5	18	39	68	105	150	203	264	333	410
371	298	233	176	127	86	53	28	11	2	1	6	19	40	69	106	151	204	265	334	411
370	297	232	175	126	85	52	27	10	9	8	7	20	41	70	107	152	205	266	335	412
369	296	231	174	125	84	51	26	25	24	23	22	21	42	71	108	153	206	267	336	413
368	295	230	173	124	83	50	49	48	47	46	45	44	43	72	109	154	207	268	337	414
367	294	229	172	123	82	81	80	79	78	77	76	75	74	73	110	155	208	269	338	415
366	293	228	171	122	121	120	119	118	117	116	115	114	113	112	111	156	209	270	339	416
365	292	227	170	169	168	167	166	165	164	163	162	161	160	159	158	157	210	271	340	417
364	291	226	225	224	223	222	221	220	219	218	217	216	215	214	213	212	211	272	341	418
363	290	289	288	287	286	285	284	283	282	281	280	279	278	277	276	275	274	273	342	419
362	361	360	359	358	357	356	355	354	353	352	351	350	349	348	347	346	345	344	343	420
441	440	439	438	437	436	435	434	433	432	431	430	429	428	427	426	425	424	423	422	421

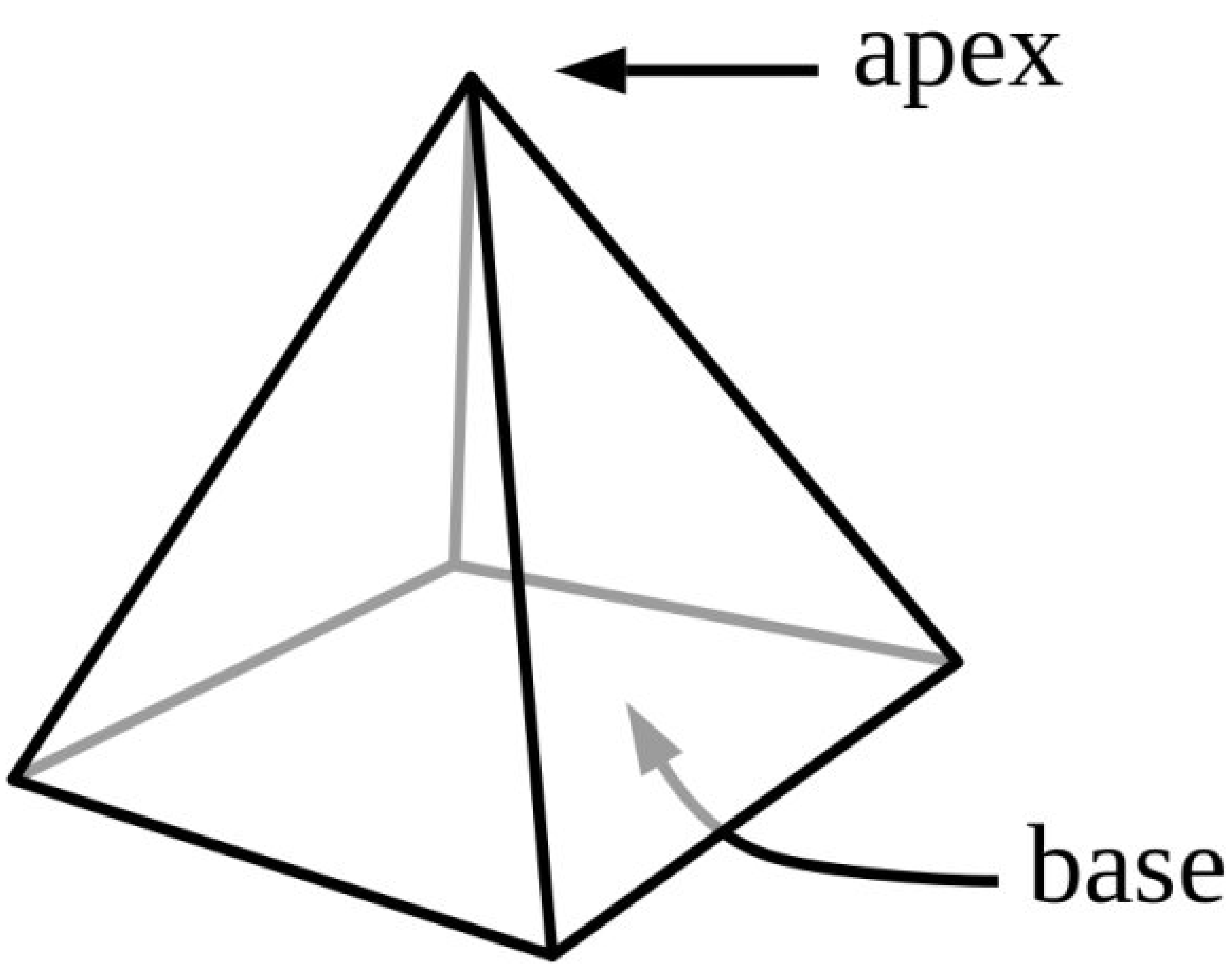
Following the number 9, the Square of Nine extends outward, initiating a new rotation that spans from 10 to 25.

After that, the Square of Nine progresses to a larger rotation, encompassing numbers from 26 to 49.

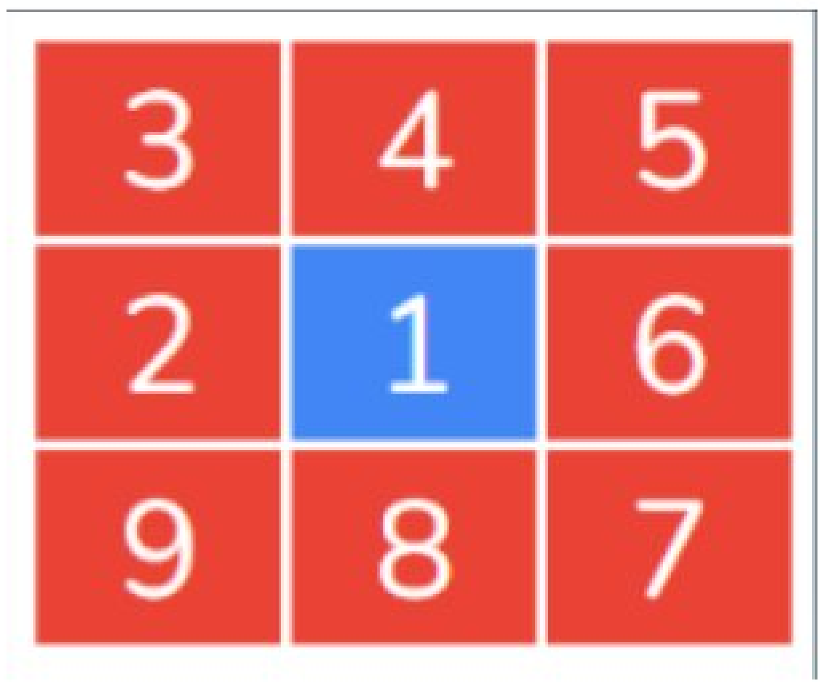
It looks like a large wheel. This is why this is also called a “Gann Wheel”.

In the context of the Square of Nine, this geometric pattern has also earned the moniker "Gann Pyramid."

Just as a pyramid rises to a peak and expands as it descends, the Square of Nine's rotations similarly radiate outward in a pyramid-like manner, showcasing its unique structure and dynamic nature.



So, the number in the center which is 1 is the apex of the pyramid and it is growing away outward from the base in a spiral shape.



3	4	5
2	1	6
9	8	7

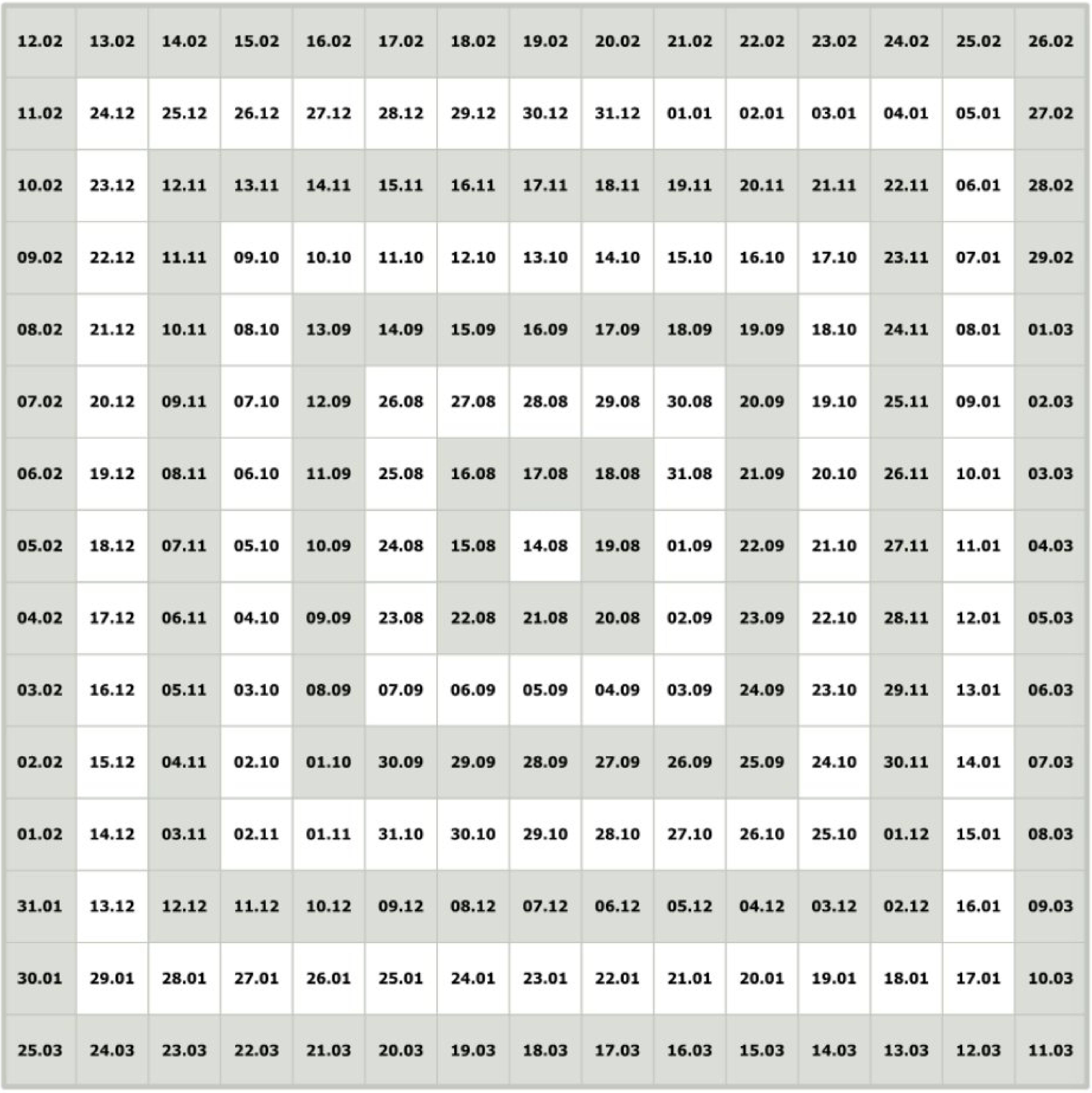
The origin of the name "Square of Nine" stems from its characteristic that the first complete rotation concludes at the number 9.

On the same diagonal with 4 we have the numbers 16, 36, 64, 100, 144, 196 and so on which are the square of even numbers 2, 4, 6, 8, 10, 12, 14 etc.

Is there a coincidence or is it harmony?

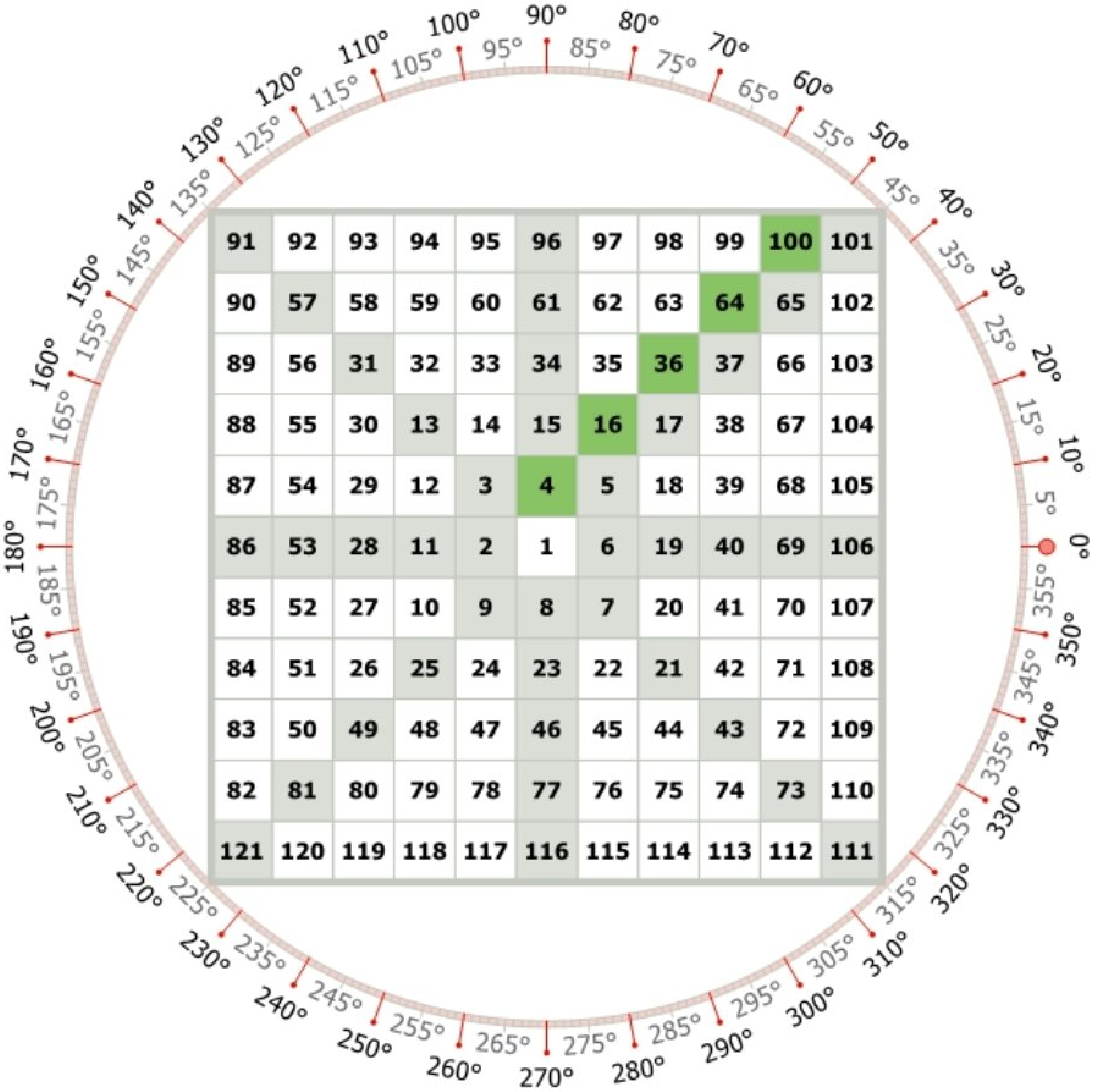
We can also input instead of numbers some calendar dates to help us calculate the day for the High and the Low.

This is how such a square look like:



12.02	13.02	14.02	15.02	16.02	17.02	18.02	19.02	20.02	21.02	22.02	23.02	24.02	25.02	26.02
11.02	24.12	25.12	26.12	27.12	28.12	29.12	30.12	31.12	01.01	02.01	03.01	04.01	05.01	27.02
10.02	23.12	12.11	13.11	14.11	15.11	16.11	17.11	18.11	19.11	20.11	21.11	22.11	06.01	28.02
09.02	22.12	11.11	09.10	10.10	11.10	12.10	13.10	14.10	15.10	16.10	17.10	23.11	07.01	29.02
08.02	21.12	10.11	08.10	13.09	14.09	15.09	16.09	17.09	18.09	19.09	18.10	24.11	08.01	01.03
07.02	20.12	09.11	07.10	12.09	26.08	27.08	28.08	29.08	30.08	20.09	19.10	25.11	09.01	02.03
06.02	19.12	08.11	06.10	11.09	25.08	16.08	17.08	18.08	31.08	21.09	20.10	26.11	10.01	03.03
05.02	18.12	07.11	05.10	10.09	24.08	15.08	14.08	19.08	01.09	22.09	21.10	27.11	11.01	04.03
04.02	17.12	06.11	04.10	09.09	23.08	22.08	21.08	20.08	02.09	23.09	22.10	28.11	12.01	05.03
03.02	16.12	05.11	03.10	08.09	07.09	06.09	05.09	04.09	03.09	24.09	23.10	29.11	13.01	06.03
02.02	15.12	04.11	02.10	01.10	30.09	29.09	28.09	27.09	26.09	25.09	24.10	30.11	14.01	07.03
01.02	14.12	03.11	02.11	01.11	31.10	30.10	29.10	28.10	27.10	26.10	25.10	01.12	15.01	08.03
31.01	13.12	12.12	11.12	10.12	09.12	08.12	07.12	06.12	05.12	04.12	03.12	02.12	16.01	09.03
30.01	29.01	28.01	27.01	26.01	25.01	24.01	23.01	22.01	21.01	20.01	19.01	18.01	17.01	10.03
25.03	24.03	23.03	22.03	21.03	20.03	19.03	18.03	17.03	16.03	15.03	14.03	13.03	12.03	11.03

Square of Even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91	92	93	94	95	96	97	98	99	100	101
90	57	58	59	60	61	62	63	64	65	102
89	56	31	32	33	34	35	36	37	66	103
88	55	30	13	14	15	16	17	38	67	104
87	54	29	12	3	4	5	18	39	68	105
86	53	28	11	2	1	6	19	40	69	106
85	52	27	10	9	8	7	20	41	70	107
84	51	26	25	24	23	22	21	42	71	108
83	50	49	48	47	46	45	44	43	72	109
82	81	80	79	78	77	76	75	74	73	110
121	120	119	118	117	116	115	114	113	112	111

This Figure 6 features green color marking each even square number.

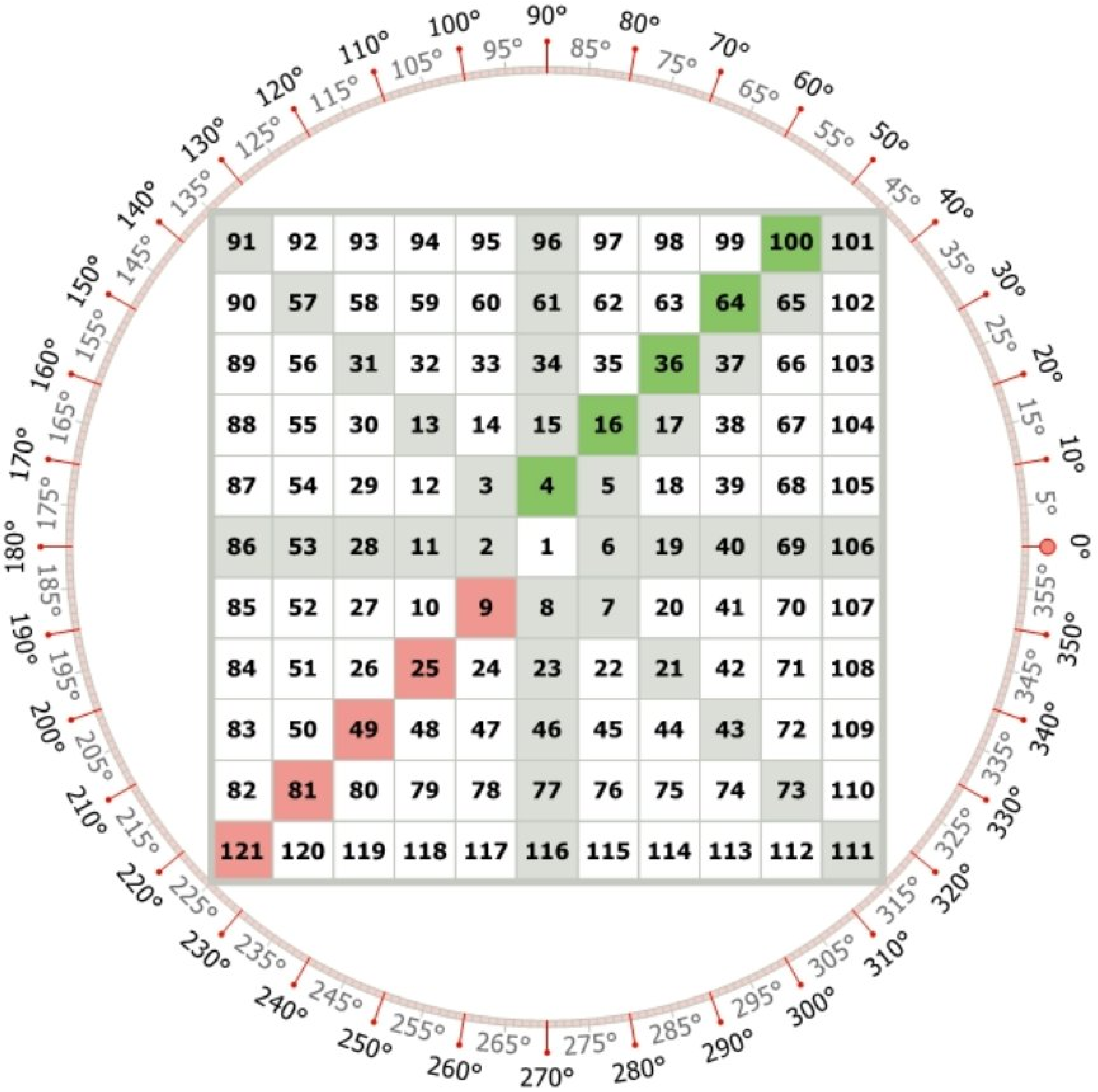
Beginning with the number 4 and progressing upwards toward the top right corner, a clear alignment of even square numbers is evident.

This sequence includes numbers such as 4, 16, 36, 64, 100, and beyond.

Notably, 4 represents the square of 2 (2 multiplied by 2 equals 4).

The subsequent numbers in this pattern follow the squares of 4, 6, 8, 10, and so forth.

- 2^2 = 4
- 4^4 = 16
- 6^6 = 36
- 8^8 = 64
- 10^10 = 100
- 12^12 = 144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91	92	93	94	95	96	97	98	99	100	101
90	57	58	59	60	61	62	63	64	65	102
89	56	31	32	33	34	35	36	37	66	103
88	55	30	13	14	15	16	17	38	67	104
87	54	29	12	3	4	5	18	39	68	105
86	53	28	11	2	1	6	19	40	69	106
85	52	27	10	9	8	7	20	41	70	107
84	51	26	25	24	23	22	21	42	71	108
83	50	49	48	47	46	45	44	43	72	109
82	81	80	79	78	77	76	75	74	73	110
121	120	119	118	117	116	115	114	113	112	111

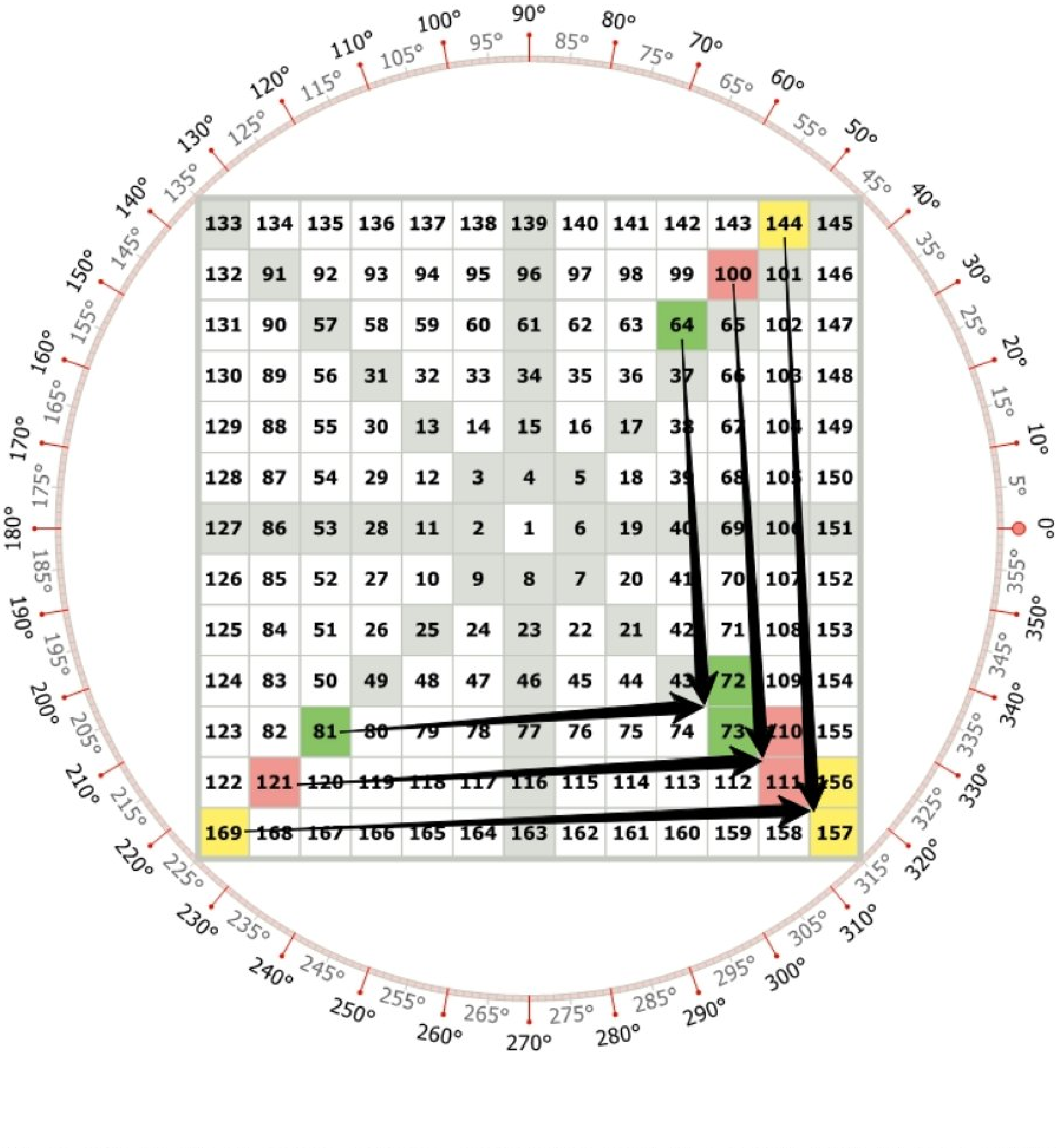
Interestingly, a comparison between the positions of the odd square numbers illustrated on the previous chapters and the even square numbers depicted here reveals an intriguing observation.

The odd square numbers, marked in red and the even square numbers, marked in green are positioned opposite each other within the Square of Nine.

This is called “Square of Even” Property of Gann Square of Nine.

Exploring Halfway Points of Square Numbers

Within the framework of the Square of Nine, a distinctive pattern emerges as we examine the halfway points between certain square numbers.



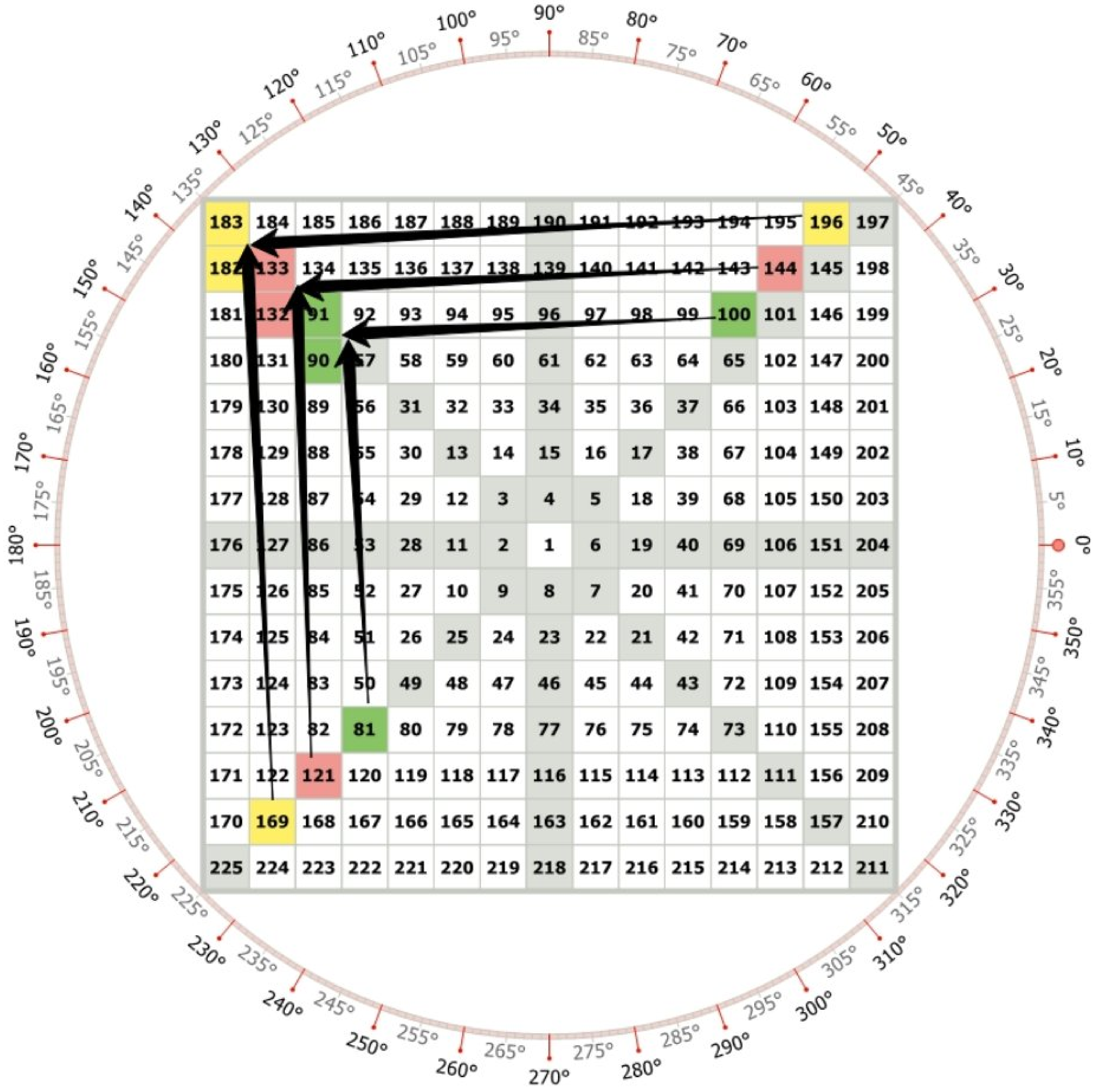
When we look at even square numbers and the next higher odd square numbers, we notice something neat. These halfway points make a sort of slope that goes down towards the lower right corner of the grid.

For example,

- Think about the number 64 and the number 81. The halfway point between them is 72.5.
- Similarly, if we find the halfway points between 100 and 121, we get 110.5,
- And between 144 and 169, it's 156.5.

You can see this interesting trend in the figure below, where a line shows where these halfway points are on the grid, sloping down and to the right.

Now, when we check out odd square numbers and the higher even square numbers nearby, there's another cool alignment happening.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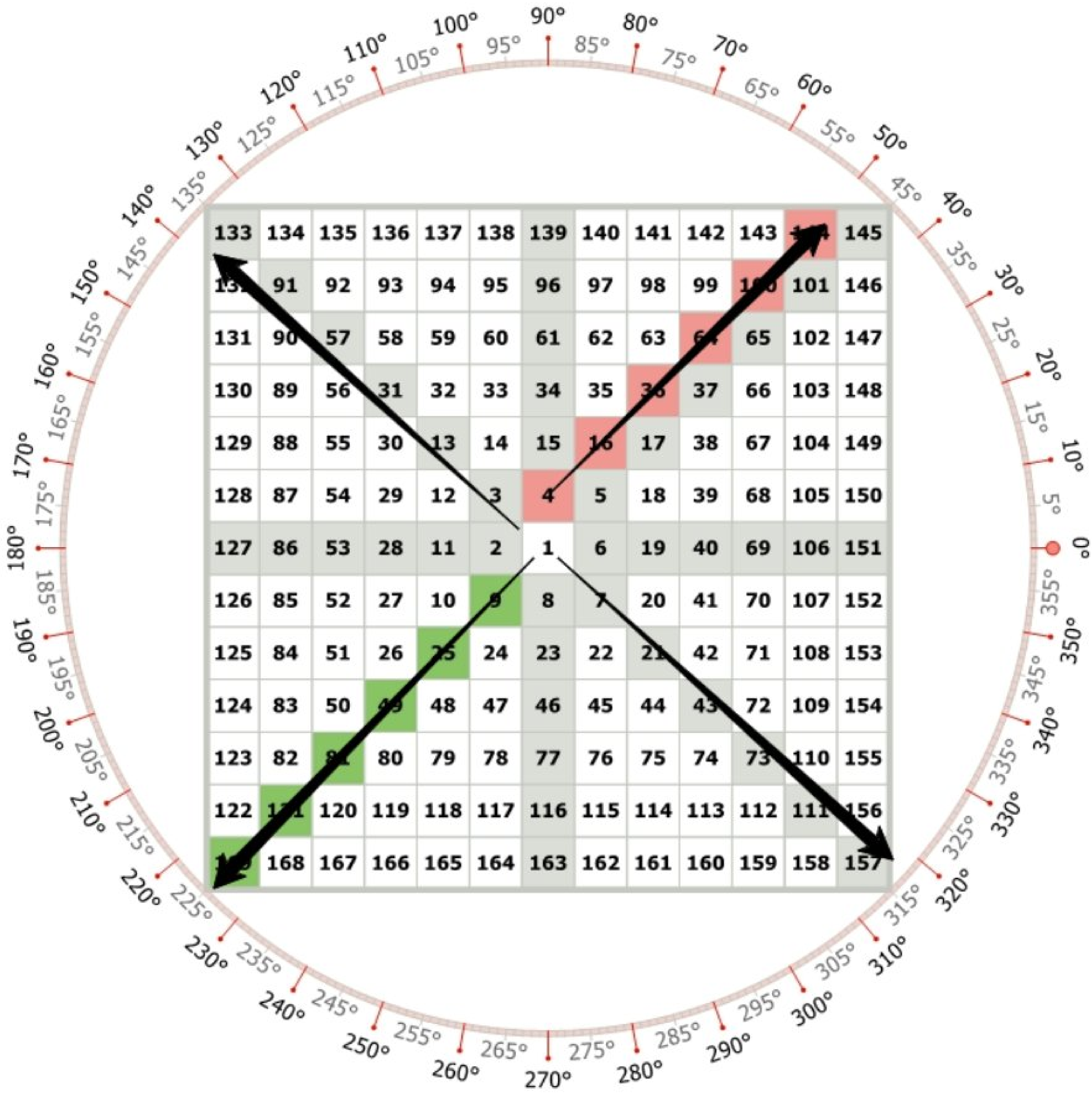
183	184	185	186	187	188	189	190	191	192	193	194	195	196	197
182	133	134	135	136	137	138	139	140	141	142	143	144	145	198
181	132	91	92	93	94	95	96	97	98	99	100	101	146	199
180	131	90	57	58	59	60	61	62	63	64	65	102	147	200
179	130	89	56	31	32	33	34	35	36	37	66	103	148	201
178	129	88	55	30	13	14	15	16	17	38	67	104	149	202
177	128	87	54	29	12	3	4	5	18	39	68	105	150	203
176	127	86	53	28	11	2	1	6	19	40	69	106	151	204
175	126	85	52	27	10	9	8	7	20	41	70	107	152	205
174	125	84	51	26	25	24	23	22	21	42	71	108	153	206
173	124	83	50	49	48	47	46	45	44	43	72	109	154	207
172	123	82	81	80	79	78	77	76	75	74	73	110	155	208
171	122	121	120	119	118	117	116	115	114	113	112	111	156	209
170	169	168	167	166	165	164	163	162	161	160	159	158	157	210
225	224	223	222	221	220	219	218	217	216	215	214	213	212	211

This time, the halfway points make a kind of slope that goes up towards the top left corner of the grid.

In the above figure, you'll notice another line that shows where these upward-sloping halfway points are. This line helps us see the pattern of how these points go up and to the left on the Square of Nine grid.

- Let's take the halfway point between 81 and 100 – it's 90.5.
- We can also find the halfway point between 121 and 144, which is 132.5,
- And between 169 and 196, it's 182.5.

Now, to wrap things up, let's bring together both of these properties and connect the lines in a single chart.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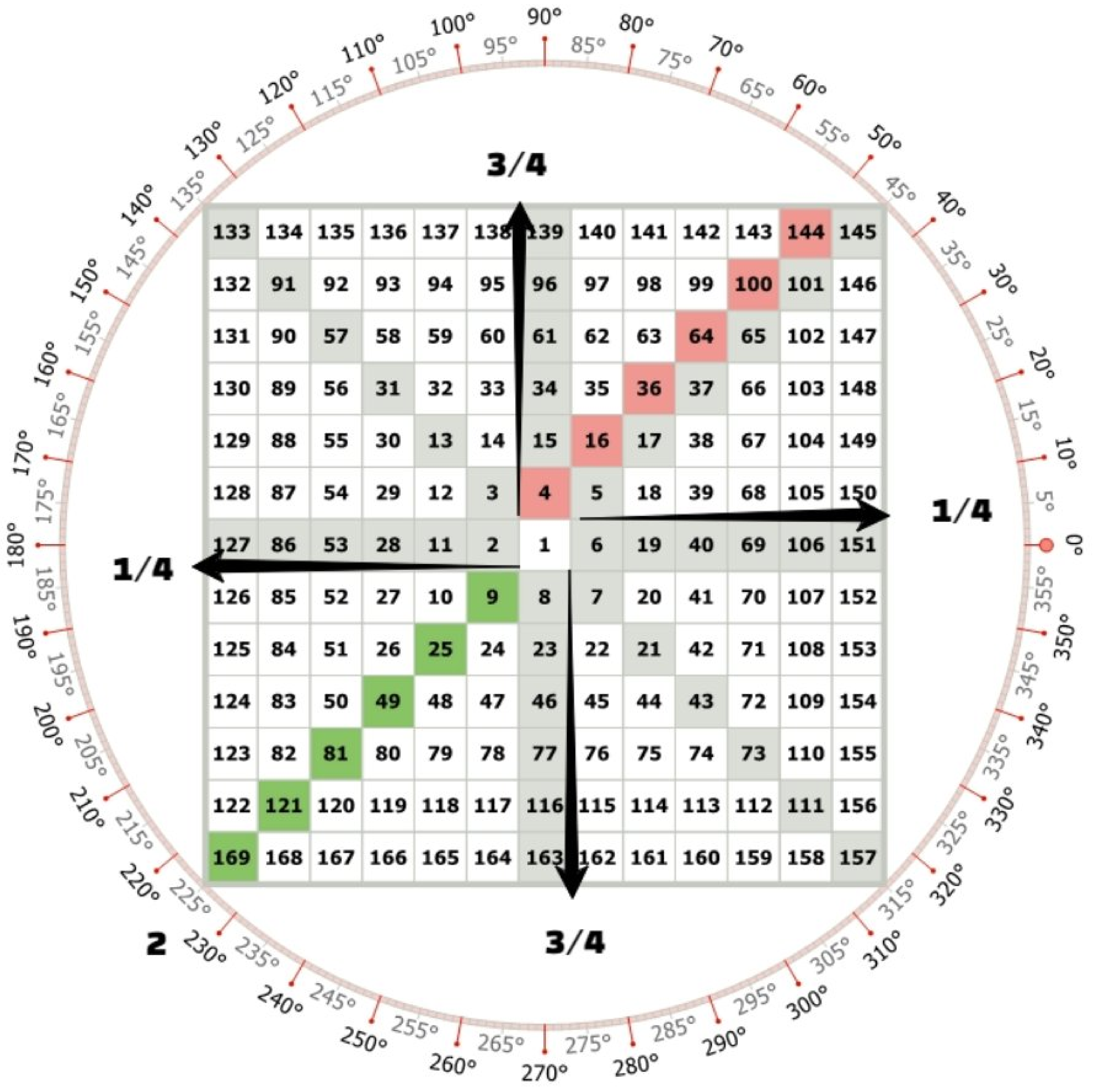
133	134	135	136	137	138	139	140	141	142	143	144	145
132	91	92	93	94	95	96	97	98	99	100	101	146
131	90	57	58	59	60	61	62	63	64	65	102	147
130	89	56	31	32	33	34	35	36	37	66	103	148
129	88	55	30	13	14	15	16	17	38	67	104	149
128	87	54	29	12	3	4	5	18	39	68	105	150
127	86	53	28	11	2	1	6	19	40	69	106	151
126	85	52	27	10	9	8	7	20	41	70	107	152
125	84	51	26	25	24	23	22	21	42	71	108	153
124	83	50	49	48	47	46	45	44	43	72	109	154
123	82	81	80	79	78	77	76	75	74	73	110	155
122	121	120	119	118	117	116	115	114	113	112	111	156
169	168	167	166	165	164	163	162	161	160	159	158	157

Exploring Quarter Points of Square Numbers

As we explore the Square of Nine and move from even square numbers to odd square numbers, or the other way around, we find some interesting points along the way.

- First, we come across First quarter points,
- Then halfway points,
- And finally third quarter points.
- Then we land into either “Square of Odd” or “Square of Even”.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133	134	135	136	137	138	139	140	141	142	143	144	145
132	91	92	93	94	95	96	97	98	99	100	101	146
131	90	57	58	59	60	61	62	63	64	65	102	147
130	89	56	31	32	33	34	35	36	37	66	103	148
129	88	55	30	13	14	15	16	17	38	67	104	149
128	87	54	29	12	3	4	5	18	39	68	105	150
127	86	53	28	11	2	1	6	19	40	69	106	151
126	85	52	27	10	9	8	7	20	41	70	107	152
125	84	51	26	25	24	23	22	21	42	71	108	153
124	83	50	49	48	47	46	45	44	43	72	109	154
123	82	81	80	79	78	77	76	75	74	73	110	155
122	121	120	119	118	117	116	115	114	113	112	111	156
169	168	167	166	165	164	163	162	161	160	159	158	157

Then it repeats.

Think of these points like markers that help us understand what's happening. These markers show up as we go through the numbers. They're like signposts on a journey. We have already discussed about Halfway Points in our previous discussion.

Like, in the journey from 100 to 121,

- The halfway point between 100 to 121 is
  100 + (121-100)/2
  = 100 + (21/2)
  = 100 + 10.5
  = 110.5
- The First Quater Point is half of halfway point and starting point,
  i.e., 100 + (110.5 - 100)/2
  = 100 + 5.25
  = 105.25

Anyways, Now,

- The Third Quater Point is half of halfway point and ending point,
  i.e., 110.5 + (121 - 110.5)/2
  = 110.5 + 5.25
  = 115.75

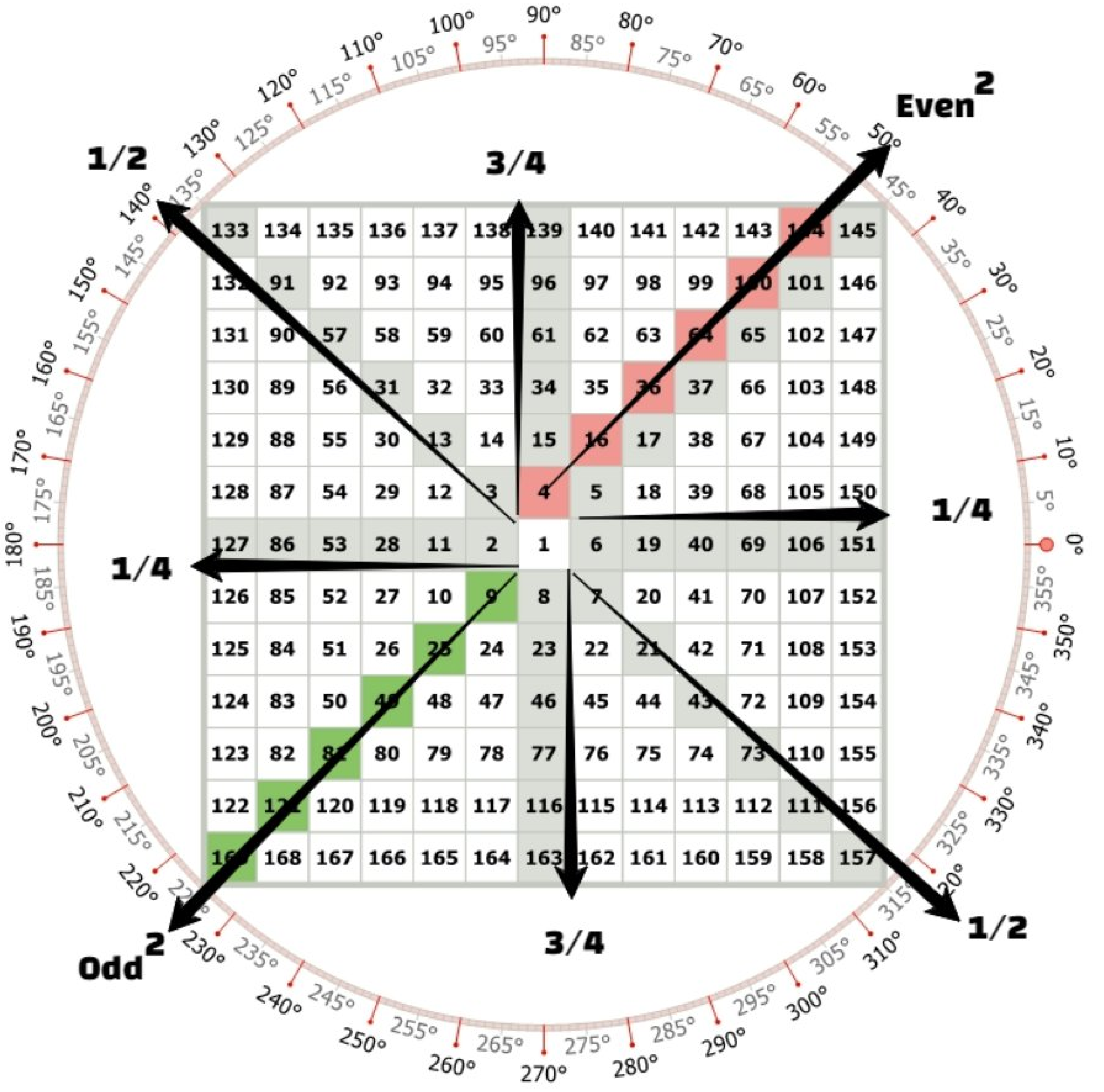
If the Numbers that fall into Square of Odd and Square of Even are whole number,

- Then the halfway number will end with .5 and,
- The First quarter numbers will end with .25 and,
- The Third quarter numbers will end with .75.

Now, these points are not regular whole numbers like 1, 2, or 3. They're in between the regular numbers on the Square of Nine.

To make it clearer:

Now, these points play a role in splitting a complete turn between consecutive odd square numbers. In this case, these points mark the steps of one-eighth as we go all the way around the full rotation.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133	134	135	136	137	138	139	140	141	142	143	144	145
132	91	92	93	94	95	96	97	98	99	100	101	146
131	90	57	58	59	60	61	62	63	64	65	102	147
130	89	56	31	32	33	34	35	36	37	66	103	148
129	88	55	30	13	14	15	16	17	38	67	104	149
128	87	54	29	12	3	4	5	18	39	68	105	150
127	86	53	28	11	2	1	6	19	40	69	106	151
126	85	52	27	10	9	8	7	20	41	70	107	152
125	84	51	26	25	24	23	22	21	42	71	108	153
124	83	50	49	48	47	46	45	44	43	72	109	154
123	82	81	80	79	78	77	76	75	74	73	110	155
122	121	120	119	118	117	116	115	114	113	112	111	156
169	168	167	166	165	164	163	162	161	160	159	158	157

Quarter (1/4) Points:

They split the numbers between even and odd square numbers on the right or left sides.

Halfway (1/2) Points:

- They show up as you move from even to odd numbers, going down and to the right.

- When you go from odd to even numbers, they go up and to the left.

Three Quarter (3/4) Points:

- These appear at the bottom when you're going from even to odd numbers,
- And at the top when you're going from odd to even numbers.

They help divide a full rotation between odd square numbers, and each point represents a little part of that rotation.

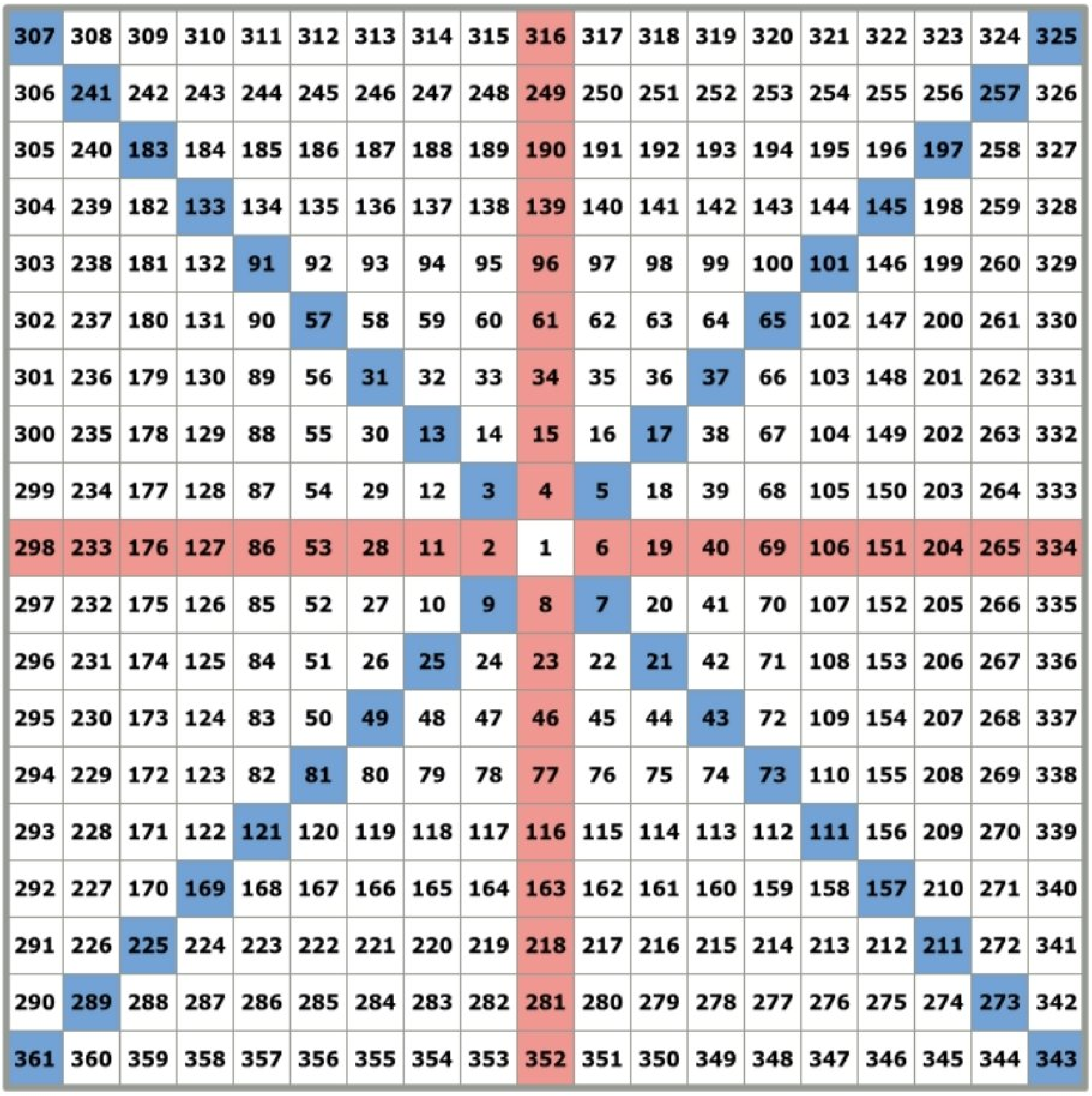
Cardinal Cross and Ordinal Cross

Within the Gann Square of 9, We encounter two significant crosses:

- The Cardinal Cross.
- The Ordinal Cross.

Cardinal Cross

Cardinal means “Central” or “Essential”. The cardinal cross consists of four numbers aligned along the cardinal points of the Gann Square of 9.



307	308	309	310	311	312	313	314	315	316	317	318	319	320	321	322	323	324	325
306	241	242	243	244	245	246	247	248	249	250	251	252	253	254	255	256	257	326
305	240	183	184	185	186	187	188	189	190	191	192	193	194	195	196	197	258	327
304	239	182	133	134	135	136	137	138	139	140	141	142	143	144	145	198	259	328
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302	237	180	131	90	57	58	59	60	61	62	63	64	65	102	147	200	261	330
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300	235	178	129	88	55	30	13	14	15	16	17	38	67	104	149	202	263	332
299	234	177	128	87	54	29	12	3	4	5	18	39	68	105	150	203	264	333
298	233	176	127	86	53	28	11	2	1	6	19	40	69	106	151	204	265	334
297	232	175	126	85	52	27	10	9	8	7	20	41	70	107	152	205	266	335
296	231	174	125	84	51	26	25	24	23	22	21	42	71	108	153	206	267	336
295	230	173	124	83	50	49	48	47	46	45	44	43	72	109	154	207	268	337
294	229	172	123	82	81	80	79	78	77	76	75	74	73	110	155	208	269	338
293	228	171	122	121	120	119	118	117	116	115	114	113	112	111	156	209	270	339
292	227	170	169	168	167	166	165	164	163	162	161	160	159	158	157	210	271	340
291	226	225	224	223	222	221	220	219	218	217	216	215	214	213	212	211	272	341
290	289	288	287	286	285	284	283	282	281	280	279	278	277	276	275	274	273	342
361	360	359	358	357	356	355	354	353	352	351	350	349	348	347	346	345	344	343

The numbers are strategically placed in the north, south, east and west directions within the square. **The red line in the image on the above denotes Cardinal Cross.**

The numbers that fall in the Cardinal Cross are significant!

Ordinal Cross

In contrast, the ordinal cross comprises four numbers positioned along the diagonal directions of the Gann Square of 9.

The word "Ordinal" refers to the order or sequence of numbers.

These numbers are strategically placed in the northeast, northwest, southeast, and southwest directions within the square. **The numbers that fall on the blue lines running into the corners of the square, form what's known as the Ordinal Cross.**

Reference to Christianity

However, both terms are often related to Christianity!

The Cardinal Cross is often interpreted in relation to Jesus Christ's Cross!

The term Ordinal comes from the Christian rite called Ordination.

Calculation of Gann Rotations

The Square of Nine isn't just about odd and even square numbers. It also involves the number eight (8) in its calculations. Each time the Square of Nine goes around, it adds eight more numbers to the previous round. It's like stepping up a ladder, one rung at a time.

For example, in the first go, we have eight numbers from 2 to 9. In the second round, we add another eight to make 16 numbers from 10 to 25. And it continues like that. Here's a breakdown of the first nine rounds:

- Round 1: 8 numbers from 2 to 9
- Round 2: 16 numbers (8x2=16) from 10 to 25
- Round 3: 24 numbers (8x3=24) from 26 to 49
- Round 4: 32 numbers (8x4=32) from 50 to 81
- Round 5: 40 numbers (8x5=40) from 82 to 121
- Round 6: 48 numbers (8x6=48) from 122 to 169
- Round 7: 56 numbers (8x7=56) from 170 to 225
- Round 8: 64 numbers (8x8=64) from 226 to 289
- Round 9: 72 numbers (8x9=72) from 290 to 361

Now, let's talk about how to figure out how many cells are in each round of the Square of Nine:

1. Start with the odd square number that finishes the round (for example, 361).
2. Find the square root of that number (in this case, it's 19).
3. Divide the result from step 2 by 2 (so, 19/2 = 9.5).
4. Subtract 0.5 from the answer in step 3 (which gives us 9).
5. Multiply the answer from step 4 by 8 (resulting in 72).

This means there are 72 cells in the round that ends with the number 361. This method works for any round in the Square of Nine.

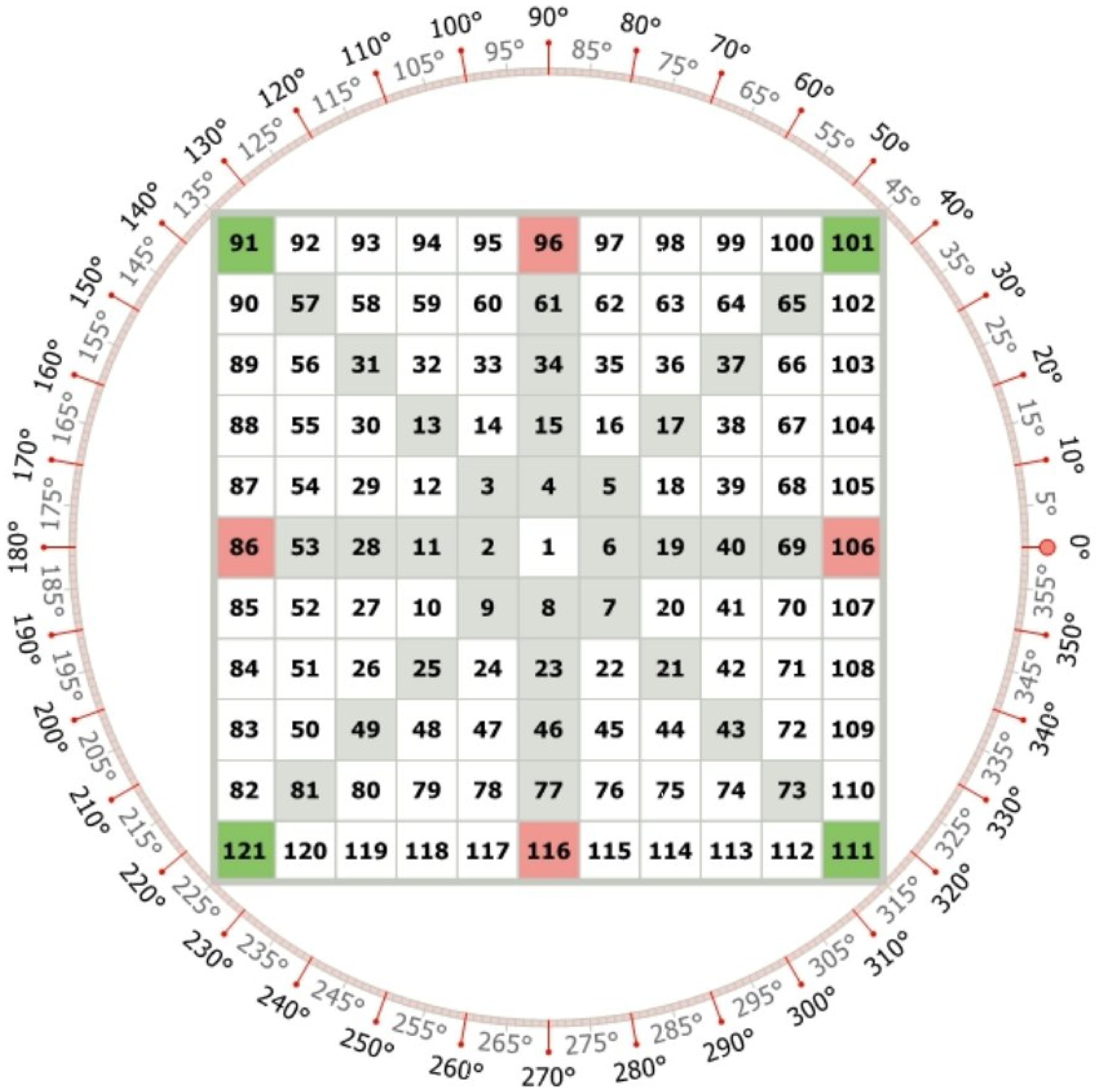
There is another way which we already discussed earlier. It is with the concept of “Size”.

A Gann Square of 9 with Size 6 will be a grid of 6th odd number.

It means it will be a grid of 11 as you can see it is 6th odd number from the odd number’s sequence of 1, 3, 5, 7, 9, 11... Etc.

11x11 grid has 121 numbers.

The above approach shows that Gann Square of 9 has many ways of effective calculations!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89	56	31	32	33	34	35	36	37	66	103
88	55	30	13	14	15	16	17	38	67	104
87	54	29	12	3	4	5	18	39	68	105
86	53	28	11	2	1	6	19	40	69	106
85	52	27	10	9	8	7	20	41	70	107
84	51	26	25	24	23	22	21	42	71	108
83	50	49	48	47	46	45	44	43	72	109
82	81	80	79	78	77	76	75	74	73	110
121	120	119	118	117	116	115	114	113	112	111

In another note, Let’s say You are given the number of 121 and is tasked to find the previous numbers that lie in the cardinal and ordinal crosses.

The numbers are marked here in above with green and red color. Now, although, we can calculate it using the property of “Square of Odds”, there is another way to do so!

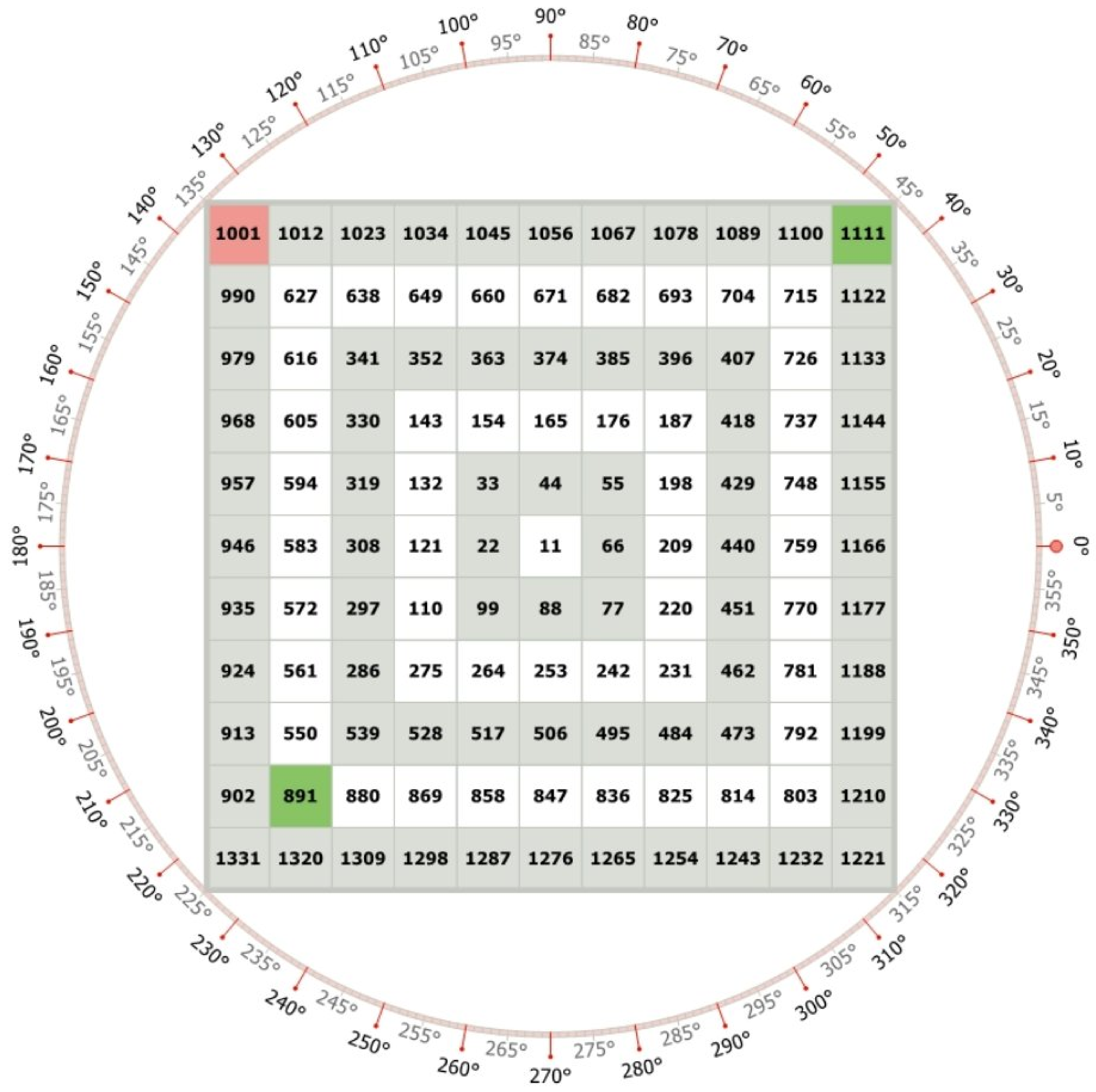
Let’s revisit the concept of Sizes. The number 121 and the problems i.e. the numbers we need to find are on the Round 5 in this Size 6 Gann Square of Nine.

Now, if We recall from back,

In Round 5, there are 40 numbers (8x5=40) from 82 to 121.

So, Let's make eight equal parts of eight equal directions! 40/8 = 5. Hence the numbers are -

- 121 - 5 = 116
- 116 - 5 = 111
- 111 - 5 = 106
- 106 - 5 = 101
- 101 - 5 = 96
- 96 - 5 = 91
- 91 - 5 = 86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1001	1012	1023	1034	1045	1056	1067	1078	1089	1100	1111
990	627	638	649	660	671	682	693	704	715	1122
979	616	341	352	363	374	385	396	407	726	1133
968	605	330	143	154	165	176	187	418	737	1144
957	594	319	132	33	44	55	198	429	748	1155
946	583	308	121	22	11	66	209	440	759	1166
935	572	297	110	99	88	77	220	451	770	1177
924	561	286	275	264	253	242	231	462	781	1188
913	550	539	528	517	506	495	484	473	792	1199
902	891	880	869	858	847	836	825	814	803	1210
1331	1320	1309	1298	1287	1276	1265	1254	1243	1232	1221

The reason the number "8" matters is that it also signifies 8 sides and allows the numbers to get divided by 8! It breaks the Gann Square of 9 into eight equal parts.

We can indulge the same properties of equidistance into more complex calculations. Like in the image above, The Gann Square of 9 is an unconventional one.

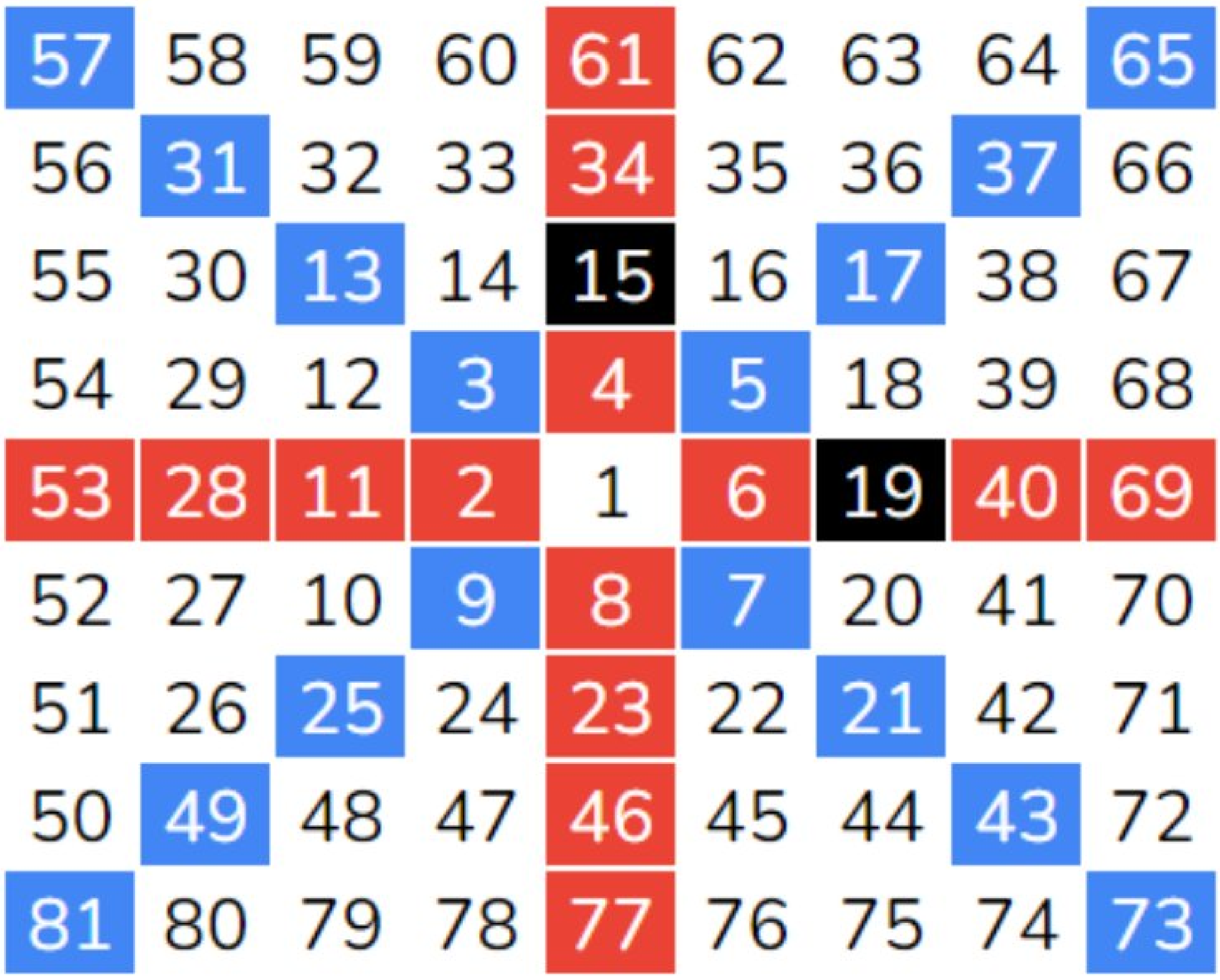
The apex value is 11. It has an increment of 11. Let’s say we know the values that are marked in green in the above image i.e., 891 and 1111. Can We find the number marked in the red color?

- 891 is the starting cell that spiral outwards.
- In other words, the distance between 891 and 1111 divides the outer base where 1111 lies into 2 equal parts.
- To get the red cell’s value we need to divide it by 4 equal parts.

So, Answer is 891 + ((1111-891)/4) *2 = 891 + (55*2) = 891 + 110 = 1001.

The mathematical complexity increases in each step as We step into deeper into the understanding.

The Concept of Rotation



57	58	59	60	61	62	63	64	65
56	31	32	33	34	35	36	37	66
55	30	13	14	15	16	17	38	67
54	29	12	3	4	5	18	39	68
53	28	11	2	1	6	19	40	69
52	27	10	9	8	7	20	41	70
51	26	25	24	23	22	21	42	71
50	49	48	47	46	45	44	43	72
81	80	79	78	77	76	75	74	73

In the context of Square of 9, We say things like 19 is 90 degrees from 15. The Square of Nine is represented as a rectangular table of numbers, but to comprehend the positioning and angular relationships, we need to visualize it enclosed within a circle or a series of circles.

When we say that a number is 90 degrees from another number, such as 19 is 90 degrees from 15, it means that there is a 90-degree angular separation between those two numbers within the circular representation.

To further illustrate this concept, consider the number 34.

If we say that 34 is 360 degrees from 15, it implies that there is a complete rotation of the circle or a full 360-degree angular separation between the two numbers.

In the world of trigonometry, 2 radian is 360 degrees. So, that inference will work out here too.

How to Rotate Around the Gann Wheel

Here is how you can get 15 from 34 mathematically -

- 34 is the original number.
- The sqrt of 34 = √34 = 5.83095189485
- 5.83095189485 - 2 = 3.83095189
- (3.83095189) ^2 = 15 (rounded up)

360-degree rotation

Did you notice we subtracted number “2”? If "2" represents a 360-degree rotation,

180-degree rotation

Then "1" represents a 180-degree rotation,

90-degree rotation

And ".5" represents a 90-degree rotation.

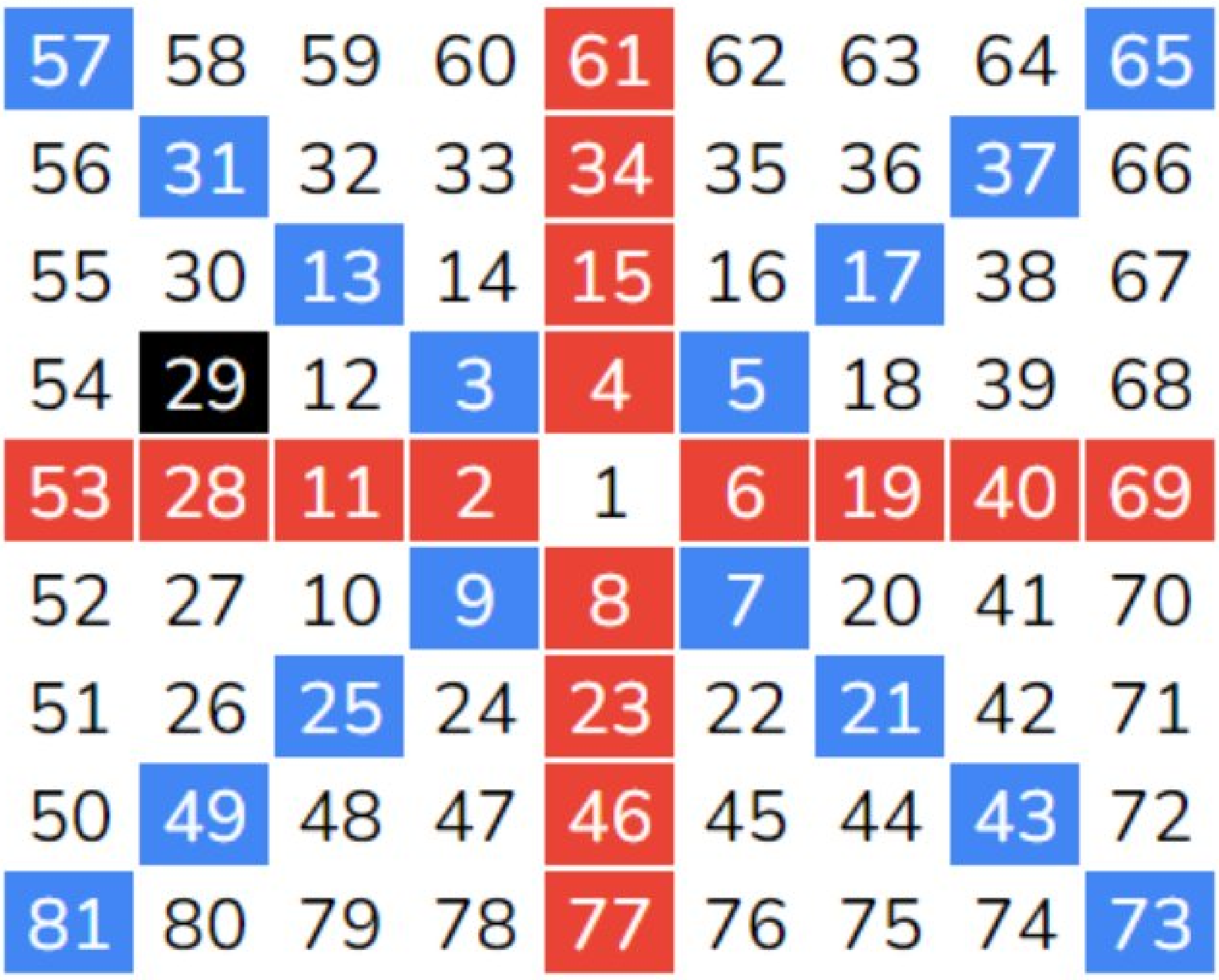
45-degree rotation

So ".25" represents a 45-degree rotation.

Or, we can recall the ways of trigonometry and use .25 radian’s .25 metric while calculating for 45 degrees.

Formulation

So far, we have discussed, Gann Square of 9’s Cardinal Cross and Ordinal Cross contains the prices which is considered as Support and Resistance.



57	58	59	60	61	62	63	64	65
56	31	32	33	34	35	36	37	66
55	30	13	14	15	16	17	38	67
54	29	12	3	4	5	18	39	68
53	28	11	2	1	6	19	40	69
52	27	10	9	8	7	20	41	70
51	26	25	24	23	22	21	42	71
50	49	48	47	46	45	44	43	72
81	80	79	78	77	76	75	74	73

Let’s say a stock is trading at 29. What is the Support and Resistance?

1. The nearest Cardinal/Ordinal i.e., important lines are at 0 degree and 45 degrees.
2. The Support is 28 and Resistance is 31.

Limitation

In the left size, the Gann Square of 9 is of Size 5 i.e., it has 5 Levels. How many prices can a Size 5 Gann Square of 9 can fit?

As discussed ago, answer is - Square of 5th odd number!

- 5th odd number = (2n-1) = (2*5-1) = 9.
- A grid of 9x9, there are 81 elements.

But What if -

Let’s say a stock is trading at 14752. What is the Support and Resistance?

To analyze the number 14752, let's consider using a Gann Square of 9 with a certain size, which we'll call "n."

In order to determine the appropriate value for n, we need to find the point where the square of (2n-1) exceeds 14752.

Let's simplify the solution step by step:

Given inequality: $(2n - 1)^2 > 14752$

$2n - 1 > \sqrt{14752}$

$2n - 1 > \sqrt{14752} \approx 121.46$ [Ignoring the negative square root]

$2n > 121.46 + 1$

$2n > 122.46$

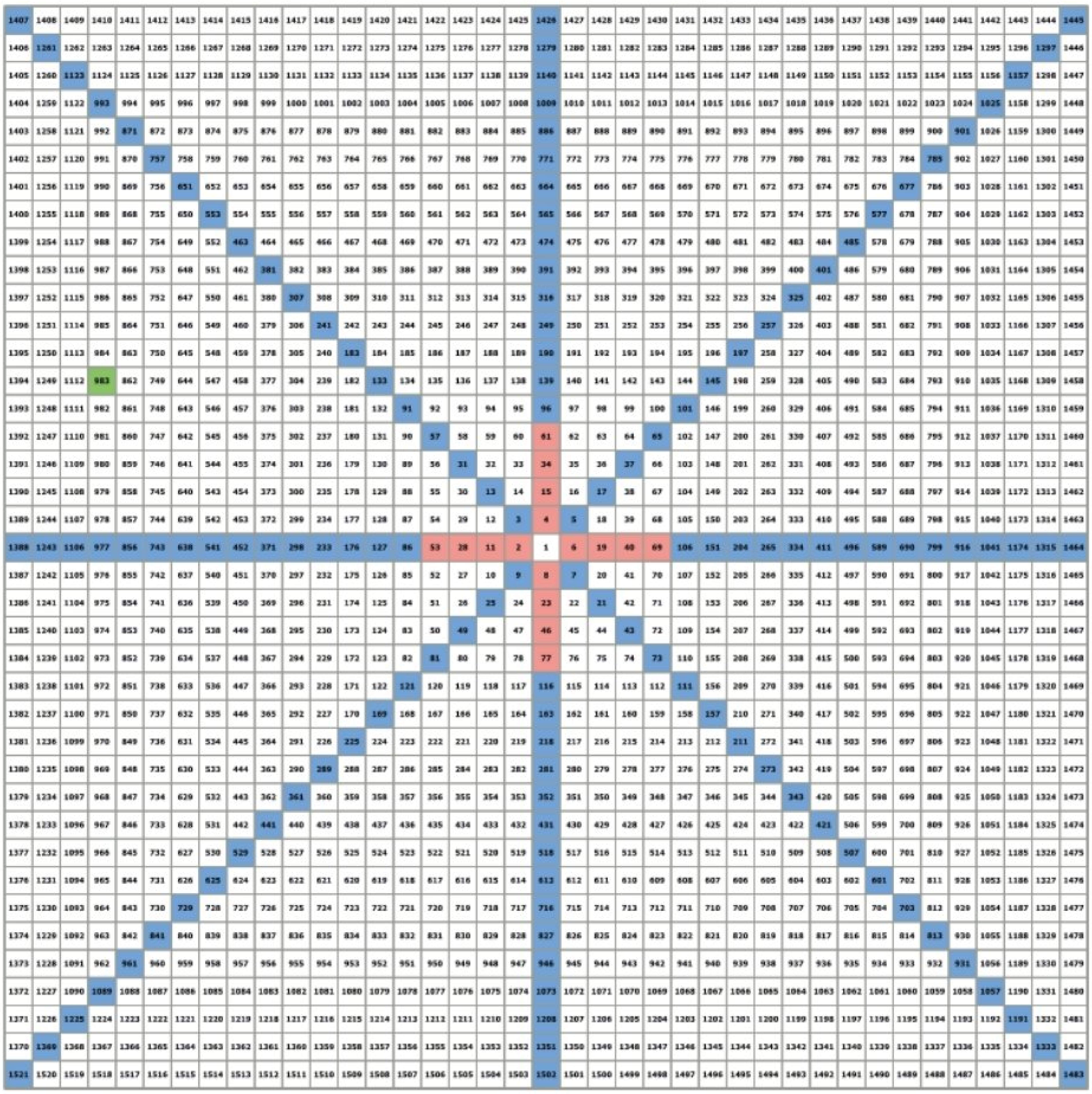
$n > 122.46 / 2$

$n > 61.23$

Since we're dealing with a positive integer value for n, we can round up to the nearest whole number:

$n \geq 62$

Therefore, the solution to the inequality (2n - 1) ^2 > 14752 is n ≥ 62. In other words, n must be greater than or equal to 62 for the given inequality to hold true.

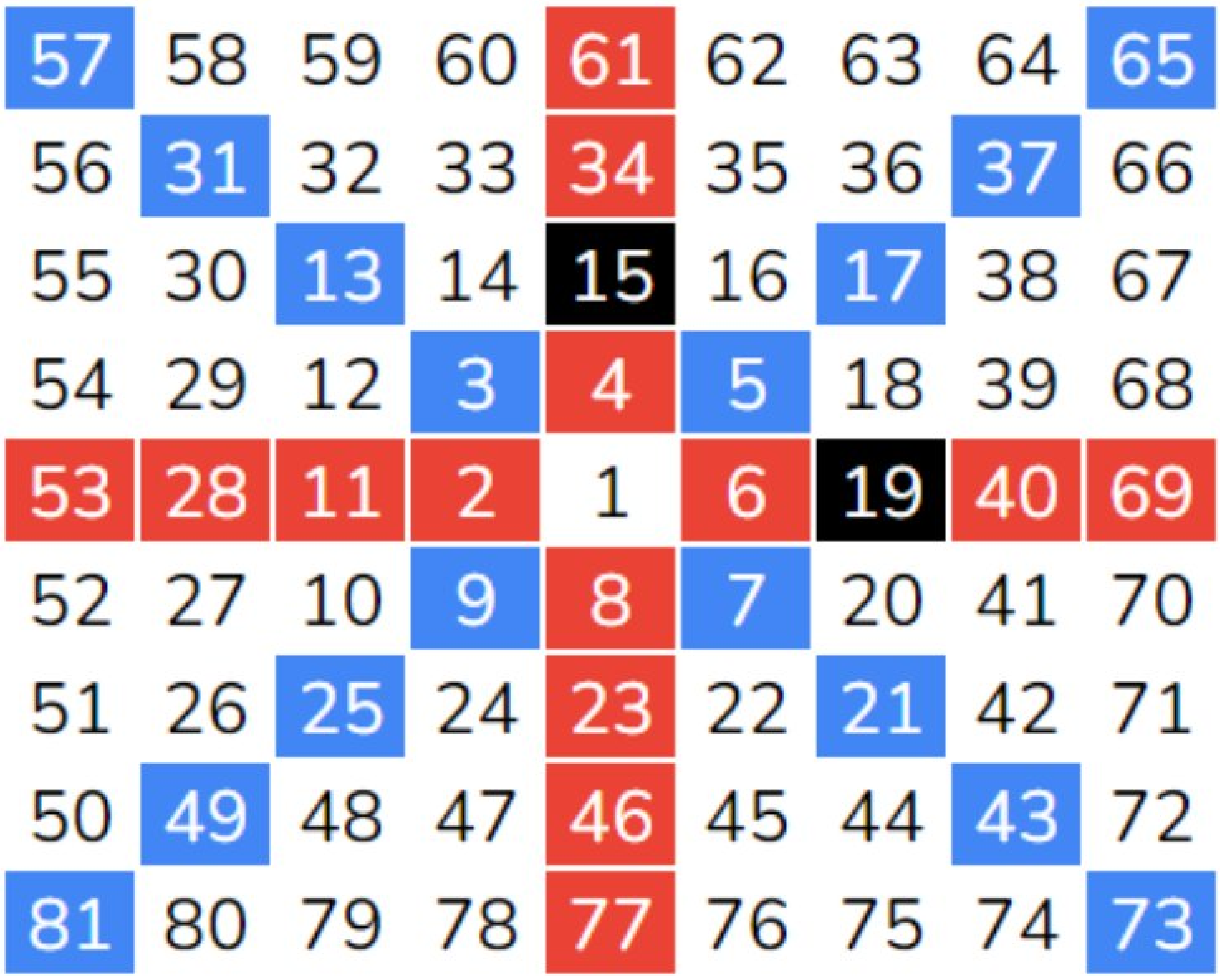


1407	1408	1409	1410	1411	1412	1413	1414	1415	1416	1417	1418	1419	1420	1421	1422	1423	1424	1425	1426	1427	1428	1429	1430	1431	1432	1433	1434	1435	1436	1437	1438	1439	1440	1441	1442	1443	1444	1445
1406	1261	1262	1263	1264	1265	1266	1267	1268	1269	1270	1271	1272	1273	1274	1275	1276	1277	1278	1279	1280	1281	1282	1283	1284	1285	1286	1287	1288	1289	1290	1291	1292	1293	1294	1295	1296	1297	1446
1405	1260	1123	1124	1125	1126	1127	1128	1129	1130	1131	1132	1133	1134	1135	1136	1137	1138	1139	1140	1141	1142	1143	1144	1145	1146	1147	1148	1149	1150	1151	1152	1153	1154	1155	1156	1157	1298	1447
1404	1259	1122	993	994	995	996	997	998	999	1000	1001	1002	1003	1004	1005	1006	1007	1008	1009	1010	1011	1012	1013	1014	1015	1016	1017	1018	1019	1020	1021	1022	1023	1024	1025	1158	1299	1448
1403	1258	1121	992	871	872	873	874	875	876	877	878	879	880	881	882	883	884	885	886	887	888	889	890	891	892	893	894	895	896	897	898	899	900	901	1026	1159	1300	1449
1402	1257	1120	991	870	757	758	759	760	761	762	763	764	765	766	767	768	769	770	771	772	773	774	775	776	777	778	779	780	781	782	783	784	785	902	1027	1160	1301	1450
1401	1256	1119	990	869	756	651	652	653	654	655	656	657	658	659	660	661	662	663	664	665	666	667	668	669	670	671	672	673	674	675	676	677	786	903	1028	1161	1302	1451
1400	1255	1118	989	868	755	650	553	554	555	556	557	558	559	560	561	562	563	564	565	566	567	568	569	570	571	572	573	574	575	576	577	678	787	904	1029	1162	1303	1452
1399	1254	1117	988	867	754	649	552	463	464	465	466	467	468	469	470	471	472	473	474	475	476	477	478	479	480	481	482	483	484	485	578	679	788	905	1030	1163	1304	1453
1398	1253	1116	987	866	753	648	551	462	381	382	383	384	385	386	387	388	389	390	391	392	393	394	395	396	397	398	399	400	401	486	579	680	789	906	1031	1164	1305	1454
1397	1252	1115	986	865	752	647	550	461	380	307	308	309	310	311	312	313	314	315	316	317	318	319	320	321	322	323	324	325	402	487	580	681	790	907	1032	1165	1306	1455
1396	1251	1114	985	864	751	646	549	460	379	306	241	242	243	244	245	246	247	248	249	250	251	252	253	254	255	256	257	326	403	488	581	682	791	908	1033	1166	1307	1456
1395	1250	1113	984	863	750	645	548	459	378	305	240	183	184	185	186	187	188	189	190	191	192	193	194	195	196	197	258	327	404	489	582	683	792	909	1034	1167	1308	1457
1394	1249	1112	983	862	749	644	547	458	377	304	239	182	133	134	135	136	137	138	139	140	141	142	143	144	145	198	259	328	405	490	583	684	793	910	1035	1168	1309	1458
1393	1248	1111	982	861	748	643	546	457	376	303	238	181	132	91	92	93	94	95	96	97	98	99	100	101	146	199	260	329	406	491	584	685	794	911	1036	1169	1310	1459
1392	1247	1110	981	860	747	642	545	456	375	302	237	180	131	90	57	58	59	60	61	62	63	64	65	102	147	200	261	330	407	492	585	686	795	912	1037	1170	1311	1460
1391	1246	1109	980	859	746	641	544	455	374	301	236	179	130	89	56	31	32	33	34	35	36	37	66	103	148	201	262	331	408	493	586	687	796	913	1038	1171	1312	1461
1390	1245	1108	979	858	745	640	543	454	373	300	235	178	129	88	55	30	13	14	15	16	17	38	67	104	149	202	263	332	409	494	587	688	797	914	1039	1172	1313	1462
1389	1244	1107	978	857	744	639	542	453	372	299	234	177	128	87	54	29	12	3	4	5	18	39	68	105	150	203	264	333	410	495	588	689	798	915	1040	1173	1314	1463
1388	1243	1106	977	856	743	638	541	452	371	298	233	176	127	86	53	28	11	2	1	6	19	40	69	106	151	204	265	334	411	496	589	690	799	916	1041	1174	1315	1464
1387	1242	1105	976	855	742	637	540	451	370	297	232	175	126	85	52	27	10	9	8	7	20	41	70	107	152	205	266	335	412	497	590	691	800	917	1042	1175	1316	1465
1386	1241	1104	975	854	741	636	539	450	369	296	231	174	125	84	51	26	25	24	23	22	21	42	71	108	153	206	267	336	413	498	591	692	801	918	1043	1176	1317	1466
1385	1240	1103	974	853	740	635	538	449	368	295	230	173	124	83	50	49	48	47	46	45	44	43	72	109	154	207	268	337	414	499	592	693	802	919	1044	1177	1318	1467
1384	1239	1102	973	852	739	634	537	448	367	294	229	172	123	82	81	80	79	78	77	76	75	74	73	110	155	208	269	338	415	500	593	694	803	920	1045	1178	1319	1468
1383	1238	1101	972	851	738	633	536	447	366	293	228	171	122	121	120	119	118	117	116	115	114	113	112	111	156	209	270	339	416	501	594	695	804	921	1046	1179	1320	1469
1382	1237	1100	971	850	737	632	535	446	365	292	227	170	169	168	167	166	165	164	163	162	161	160	159	158	157	210	271	340	417	502	595	696	805	922	1047	1180	1321	1470
1381	1236	1099	970	849	736	631	534	445	364	291	226	225	224	223	222	221	220	219	218	217	216	215	214	213	212	211	272	341	418	503	596	697	806	923	1048	1181	1322	1471
1380	1235	1098	969	848	735	630	533	444	363	290	289	288	287	286	285	284	283	282	281	280	279	278	277	276	275	274	273	342	419	504	597	698	807	924	1049	1182	1323	1472
1379	1234	1097	968	847	734	629	532	443	362	361	360	359	358	357	356	355	354	353	352	351	350	349	348	347	346	345	344	343	420	505	598	699	808	925	1050	1183	1324	1473
1378	1233	1096	967	846	733	628	531	442	441	440	439	438	437	436	435	434	433	432	431	430	429	428	427	426	425	424	423	422	421	506	599	700	809	926	1051	1184	1325	1474
1377	1232	1095	966	845	732	627	530	529	528	527	526	525	524	523	522	521	520	519	518	517	516	515	514	513	512	511	510	509	508	507	600	701	810	927	1052	1185	1326	1475
1376	1231	1094	965	844	731	626	625	624	623	622	621	620	619	618	617	616	615	614	613	612	611	610	609	608	607	606	605	604	603	602	601	702	811	928	1053	1186	1327	1476
1375	1230	1093	964	843	730	729	728	727	726	725	724	723	722	721	720	719	718	717	716	715	714	713	712	711	710	709	708	707	706	705	704	703	812	929	1054	1187	1328	1477
1374	1229	1092	963	842	841	840	839	838	837	836	835	834	833	832	831	830	829	828	827	826	825	824	823	822	821	820	819	818	817	816	815	814	813	930	1055	1188	1329	1478
1373	1228	1091	962	961	960	959	958	957	956	955	954	953	952	951	950	949	948	947	946	945	944	943	942	941	940	939	938	937	936	935	934	933	932	931	1056	1189	1330	1479
1372	1227	1090	1089	1088	1087	1086	1085	1084	1083	1082	1081	1080	1079	1078	1077	1076	1075	1074	1073	1072	1071	1070	1069	1068	1067	1066	1065	1064	1063	1062	1061	1060	1059	1058	1057	1190	1331	1480
1371	1226	1225	1224	1223	1222	1221	1220	1219	1218	1217	1216	1215	1214	1213	1212	1211	1210	1209	1208	1207	1206	1205	1204	1203	1202	1201	1200	1199	1198	1197	1196	1195	1194	1193	1192	1191	1332	1481
1370	1369	1368	1367	1366	1365	1364	1363	1362	1361	1360	1359	1358	1357	1356	1355	1354	1353	1352	1351	1350	1349	1348	1347	1346	1345	1344	1343	1342	1341	1340	1339	1338	1337	1336	1335	1334	1333	1482
1521	1520	1519	1518	1517	1516	1515	1514	1513	1512	1511	1510	1509	1508	1507	1506	1505	1504	1503	1502	1501	1500	1499	1498	1497	1496	1495	1494	1493	1492	1491	1490	1489	1488	1487	1486	1485	1484	1483

The above image is Gann Square of 9 with size of 20. The size of 62 will break the screen and freeze out brain!

As The visual representation is highly unlikely, is there any mathematical way of finding the nearest cardinal cross and ordinal cross numbers without drawing the entire Gann Square of 9 using Angles?

Navigating the Gann Square of 9



57	58	59	60	61	62	63	64	65
56	31	32	33	34	35	36	37	66
55	30	13	14	15	16	17	38	67
54	29	12	3	4	5	18	39	68
53	28	11	2	1	6	19	40	69
52	27	10	9	8	7	20	41	70
51	26	25	24	23	22	21	42	71
50	49	48	47	46	45	44	43	72
81	80	79	78	77	76	75	74	73

We are given a number; Our Goal is to Find the Support and Resistance. So We need to construct the Gann Square of 9 and identify the closest Cardinal and Ordinal Cross numbers.

The problem happens when the number is of higher value -

- The Size of Gann Square of 9 needs to be higher and,
- It is hard to construct and visualize higher Gann Grids.

Let's take a Reference Point - Let's say the LTP of a stock is 5152. Let's generate a Gann Square of 9 based on this -

#1 Square of Odds

Let's start by using the Square of Odds principle. Our goal is to locate the nearest odd number that is also a perfect square.

Step 1: Calculate the square root of 5152, which is approximately 71.77743378.

Step 2: Round down this value to the closest odd number, giving us 71.

Step 3: Find the square of 71, which equals 5041.

It's important to note that while the technique involves rotating the Gann Wheel, it's similar but not identical. Additionally, for the rotation process, rounding up was required.

#2 Finding Cardinal

Now, let's apply the Gann Angle concept to discover the number that corresponds to a 45-degree rotation from 5041, which is our original value.

Taking into account the 360-degree rotation reference:

Did you observe our adjustment by subtracting the number "2"? In this context, if we consider "2" as representing a complete 360-degree i.e., one rotation, then:

- "1" would symbolize a 180-degree i.e., one-half rotation,
- ".5" would denote a 90-degree i.e., one-fourth rotation, and
- ".25" would equivalently represent a 45-degree i.e., one-eighth rotation.

Coming back to our calculation:

Starting with the original number 5041:

Step 1: Compute the square root of 5041, resulting in 71.

Step 2: Adding 0.25 to this value leads us to 71.25.

Step 3: Squaring the adjusted value of 71.25 yields 5077 (rounded up).

#2 Important Levels

Now that we grasp the Gann Angle concept and its connection to turning, let's keep exploring pivot points. Remember, cardinal and ordinal numbers act like important markers, and they have a unique link: they're separated by exactly 45 degrees. This interesting link pushes us ahead as we work out pivot points.

A pivot point is a significant price level in trading that can serve as a reference for assessing potential price movements. It's a point where the market sentiment can shift, and traders often use pivot points to make decisions about entry, exit, and risk management.

Pivot points can act as both support and resistance levels.

- When the price of an asset is falling and reaches a pivot point, it might find support there.
- On the flip side, when the price of an asset is rising and reaches a pivot point, it might encounter resistance.

Starting from our original number 5041:

Pivot Point Calculation 1:

- Step 1: Find the square root of 5041, which gives us 71.
- Step 2: Add 0.25 to 71, making it 71.25.
- Step 3: When we square 71.25, we get 5112 (rounded up).

Pivot Point Calculation 2:

- Step 1: By adding 0.25 to 71.5, we reach 71.75.
- Step 2: When we square 71.75, we end up with 5148 (rounded up).

Pivot Point Calculation 3:

- Step 1: Continuing forward, we add 0.25 to 71.75, resulting in 72.
- Step 2: When we square 72, we get 5184 (rounded up).

This process shows us how to find pivot points step by step, moving 45 degrees from the starting value of 5041.

In short,

- 71.25+.25=71.5
- Square of 71.25 = 5112 (rounded up)

- 71.5+.25=71.75
- Square of 71.25 = 5148 (rounded up)

- 71.75+.25=72
- Square of 72 = 5184 (rounded up)

.25 here means one-eight rotation indeed.

Discussion - To move a starting number three-fourths of one rotation, calculate the number to add or subtract by multiplying 3/4 or 0.75 by 2. This yields 1.5.

The Solution

Thus, we've arrived at the range of 5148 < 5152 < 5184. Basically, as all the numbers from Cardinal and Ordinal are Pivot Points, we check between which two Pivot Points the current number lies to get our answer!

At 5148, we find a support level.

Conversely, at 5184, we encounter resistance.

By performing calculations involving nearby Cardinal and Ordinal Numbers, we've successfully constructed Gann's Square of 9 Levels. It also eliminates the necessity to painstakingly sketch out the complete chart.

We got the solution without even visualizing it.

So far, you have learnt - How to calculate the support and resistance using Gann Square of 9.

Creating the Gann Square of 9

In this chapter, we will work towards an algorithm to develop Gann Square of 9 Calculator.

Remember our Last Problem? Let’s say the LTP of a stock is 5152. Let’s generate a Gann Square of 9 based on this -

So, we reached into - 5148<5152<5184

- 5148 is Support.
- 5184 is Resistance.

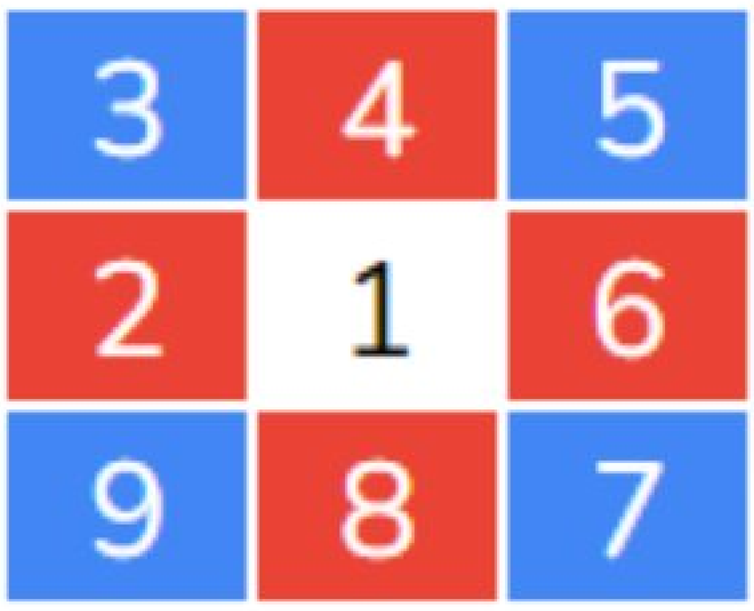
But, for a number with higher value, the Size of Gann Square of 9 needs to be higher and it is hard to visualize. So, Is there any way to visualize?

Visualization

So far, we know the Gann Square of 9 follow few interesting rules -

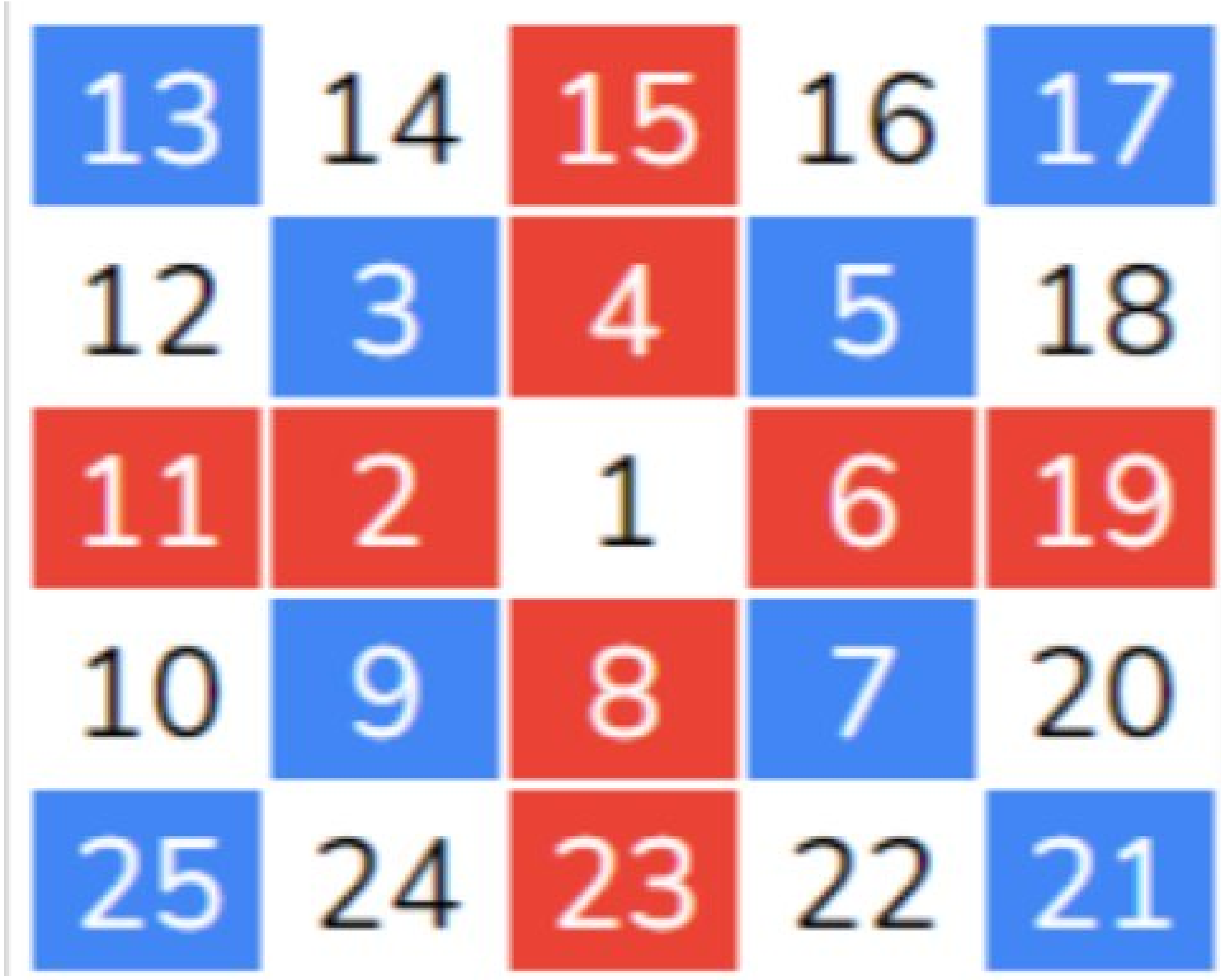
1. The square of an odd number falls in an ordinal cross.
2. The 45-degree rotation from any number that is in ordinal cross or cardinal cross will land in a new number that is in ordinal cross or cardinal cross.

Now if We have to follow two rules -



3	4	5
2	1	6
9	8	7

- The first 9 values will deviate from each other by 45 degrees.
- The LTP cannot be in first two levels because all the values of first two levels lies in either Cardinal Cross or Ordinal Cross.



13	14	15	16	17
12	3	4	5	18
11	2	1	6	19
10	9	8	7	20
25	24	23	22	21

- So, we have to create a grid of minimum 3x3 where our number will lie in the outer ring.
- So, of the LTP is at the third wheel.

#1 Getting the Apex Value

Up to this point in our exploration:
To visualize our given number, the LTP, in the most effective manner, it must be placed in the third wheel of consideration. The Apex value is situated in the first wheel. Thus, by rotating a minimum of 360 + 360 degrees, a total of 720 degrees, we can uncover the Apex value.

Now, let's delve into the scenario where our LTP resides in the third wheel. To determine the highest odd number in the Square of Odds within the Gann Square of 9, we'll employ the Square of Odds principle and round up to the nearest odd number that's also a perfect square.

That number will be the highest odd number in the Square of Odds in the Gann Square of 9. In this case -

- Square root of 5152 = 71.77743378
- Rounding up 71.77743378 = 72
- The highest odd number in the Square of Odds in the 3rd wheel i.e 2nd round in the Gann Square of Nine = (72^2) = 5184

Now, the Apex Value sits 720 degrees inward from this number. Let's proceed to unveil the Apex Value. Recall that "1" signifies a 180-degree rotation, corresponding to one-half rotation. On this basis:

"4" represents a 720-degree rotation, equivalent to two full rotations.

- Rotation of 720 degree = 72 = 68
- Square of 68 = 4624

4624 is the Apex Value. This culmination encapsulates the outcome of our meticulous exploration.

#2 Getting the Cardinal and Ordinal Numbers

Now, our deal is limited with finding the Pivot Points. The numbers that lie in the Cardinal and Ordinal Cross i.e., Cardinal and Ordinal Numbers.

Furthermore, let's consider these significant properties:

1. A 45-degree rotation from any number within the ordinal cross or cardinal cross will lead to a new number also situated within the ordinal cross or cardinal cross.
2. The Apex value itself is positioned within both the Cardinal and Ordinal Cross.

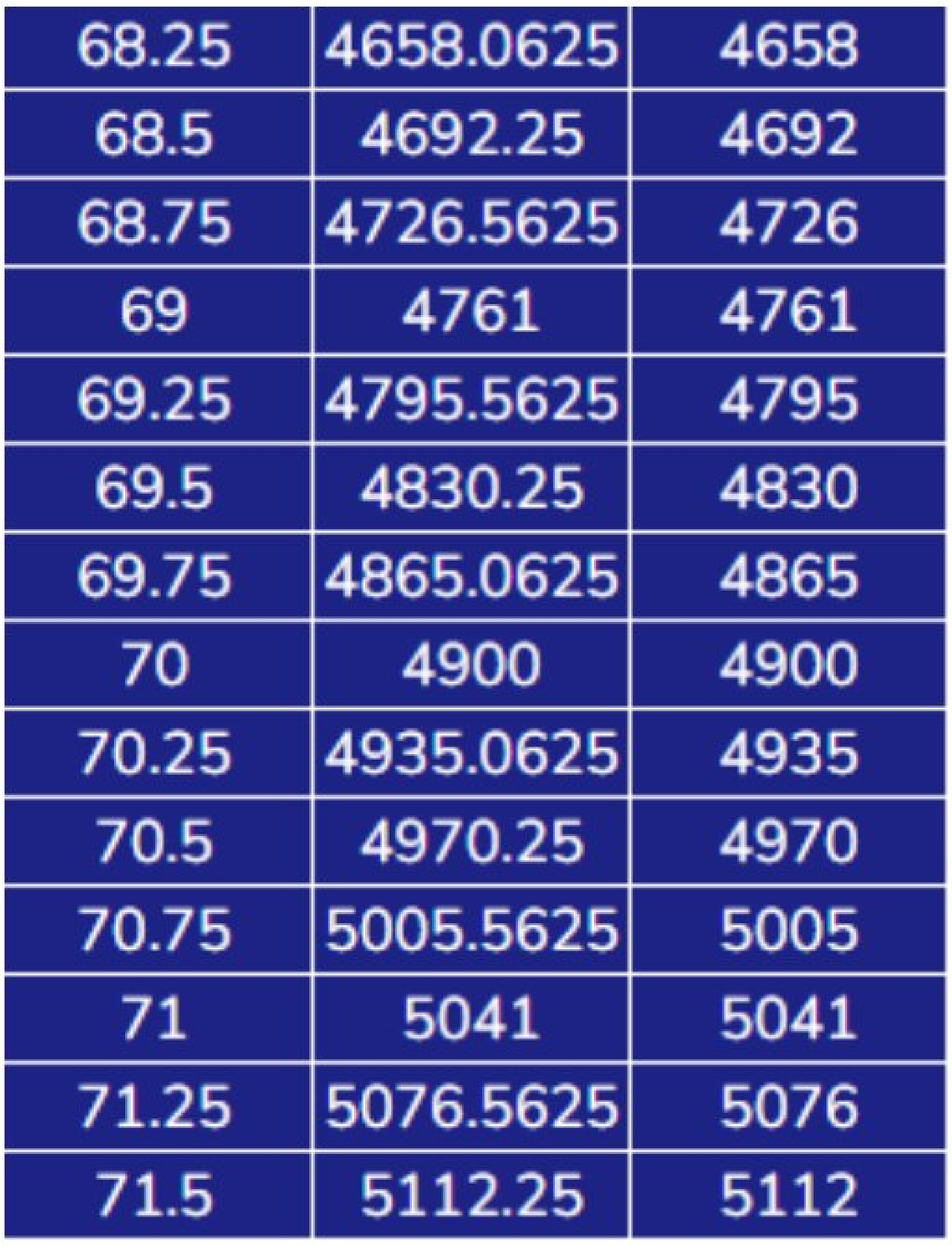
Hence, here's the strategy:
By continually generating numbers through a rotation of 45 degrees outward from the Apex value of the Square of 9,

or alternatively,
By consistently generating numbers through a rotation of 45 degrees inward from the Square of 9's largest Odd Number residing in the third wheel (as applicable in this case),

We can successfully derive all the Cardinal and Ordinal Numbers.

Let's embark on the first approach, which involves rotating from the Apex

Value, to delve into this exploration.



68.25	4658.0625	4658
68.5	4692.25	4692
68.75	4726.5625	4726
69	4761	4761
69.25	4795.5625	4795
69.5	4830.25	4830
69.75	4865.0625	4865
70	4900	4900
70.25	4935.0625	4935
70.5	4970.25	4970
70.75	5005.5625	5005
71	5041	5041
71.25	5076.5625	5076
71.5	5112.25	5112

- Indeed, it's important to note that if "2" signifies a complete 360-degree rotation, then ".25" symbolizes a 45-degree shift.
- With this understanding, let's proceed by adding ".25" to the value of 68.
- Upon obtaining this sum, we'll proceed to square it.

Rather than simply rounding down without decimals, let's round the result to the nearest two decimal places.

Let’s keep rotating the numbers to uncover the complete array of Cardinal and Ordinal numbers within the Gann Square of 9.

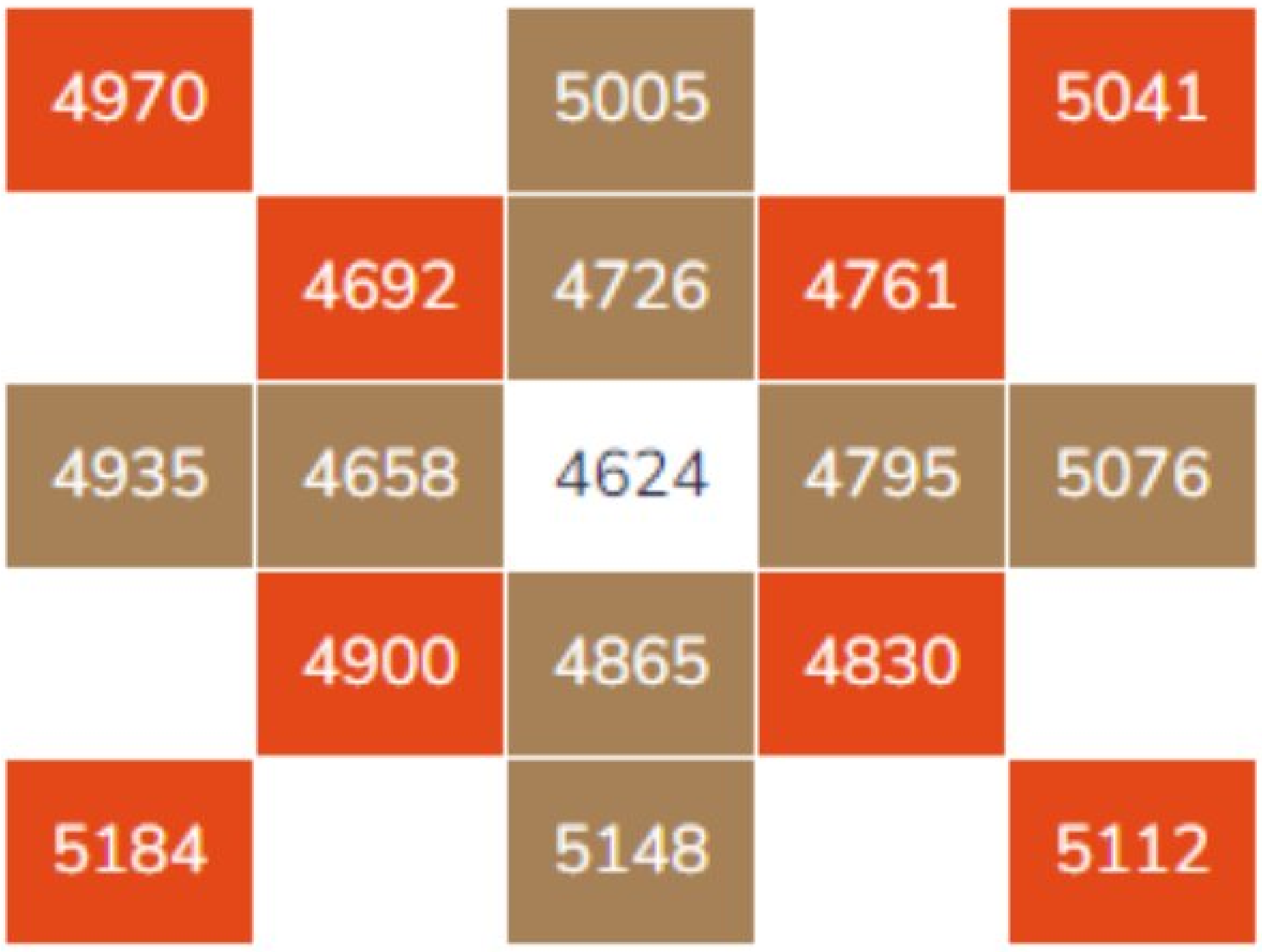
There are 4 cardinal and 4 ordinal numbers in each round.

- The Apex value contributes to 1 Pivot Point.
- The 1st Round i.e., 2nd Wheel contributes 4 cardinal number and 4 ordinal number totaling 8 Pivot Points.
- Similarly, the 2nd Round i.e. 3rd Wheel contributes 4 cardinal number and 4 ordinal number totaling 8 Pivot Points.

In net, we get 1+8+8 =17 Pivot Points.

#3 Beautify

The numbers which are not in the Cardinal or Ordinal Cross are not important. Let's leave them blank. Let's Fill the numbers of Cardinal and Ordinal Cross from previous calculation.



4970		5005		5041
	4692	4726	4761	
4935	4658	4624	4795	5076
	4900	4865	4830	
5184		5148		5112

#4 The Solution

Now, we have to put our number 5152 in the chart.

Find the Cardinal and Ordinal Numbers between which the number fits.

From the Gann Wheel in the left side, we can see -

- 5148 is Support.
- 5184 is Resistance.

Not only, we have the solution but also We have the easy to visualize Gann Square of 9. So far, you have learnt - How to create Gann Square of 9 calculator of Size 3 by changing the Apex Value.

Views in Gann Wheel

The Gann Square of 9 is often referred to as a Gann Wheel due to its spiral pattern. But here's a curious thought: can we have Gann Wheels in shapes other than squares? Like circles, pentagons, hexagons, or even a smaller square like the Square of 4?

The exciting news is, yes, there are indeed other variations!

These are known as different "Views" of the Gann Wheel. It means we can explore Gann Wheels that come in various shapes and sizes beyond the traditional square pattern.

- Square of 4
- Square of 9
- Permanent Square

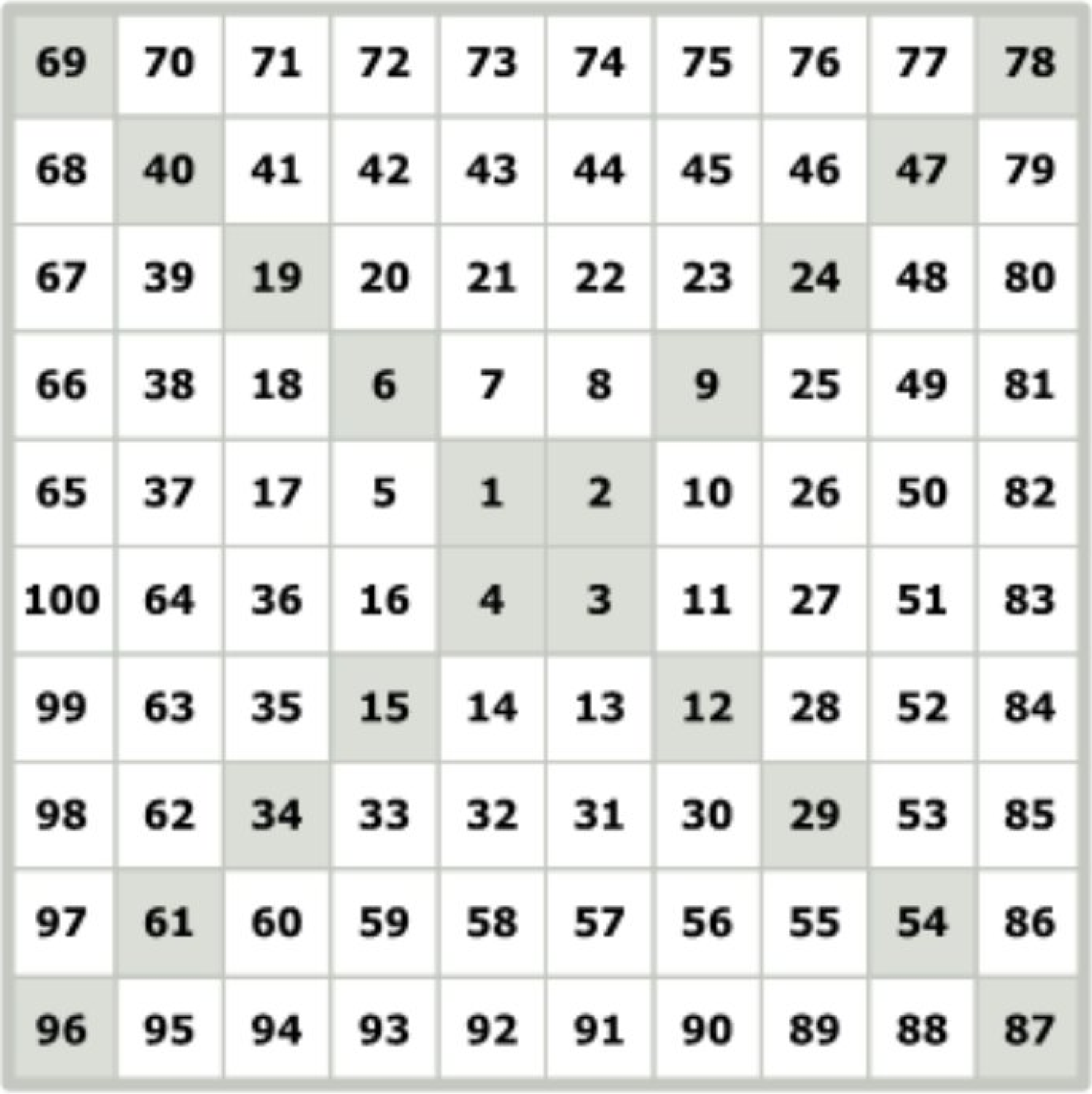
- Circle of 12
- Circle of 24
- Circle of 36

- Tetragon
- Pentagon
- Hexagon
- Septagon
- Octagon

Note - Square of 144 is not part of the Gann Wheel setup; it represents a separate concept altogether.

Square of 4

- Gann Square of 4 is also a Gann Wheel.
- You can see the spiral pattern here as well in which the numbers are written!
- Instead of a pointy Pyramid, you can assume it as a Pyramid with flat head!
- The first complete square is a square of 4. Hence, the name!



69	70	71	72	73	74	75	76	77	78
68	40	41	42	43	44	45	46	47	79
67	39	19	20	21	22	23	24	48	80
66	38	18	6	7	8	9	25	49	81
65	37	17	5	1	2	10	26	50	82
100	64	36	16	4	3	11	27	51	83
99	63	35	15	14	13	12	28	52	84
98	62	34	33	32	31	30	29	53	85
97	61	60	59	58	57	56	55	54	86
96	95	94	93	92	91	90	89	88	87

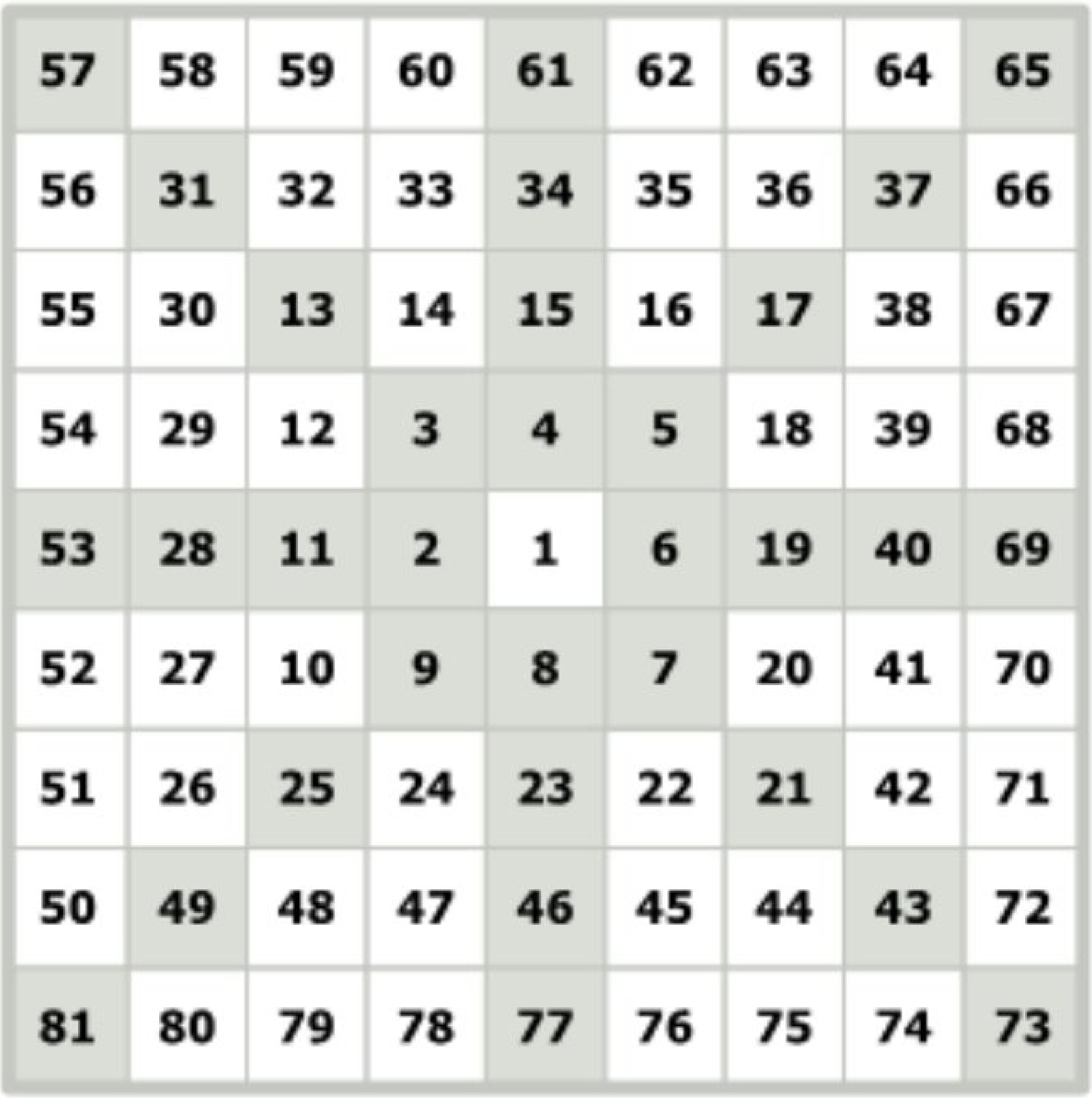
There is no resistance and support levels horizontal and vertically like Cardinal Cross. There is only Ordinal Cross here. The Support and Resistance levels are marked here with deeper color tone!

Square of 9

This is the famous Square of 9 we are already discussing about.

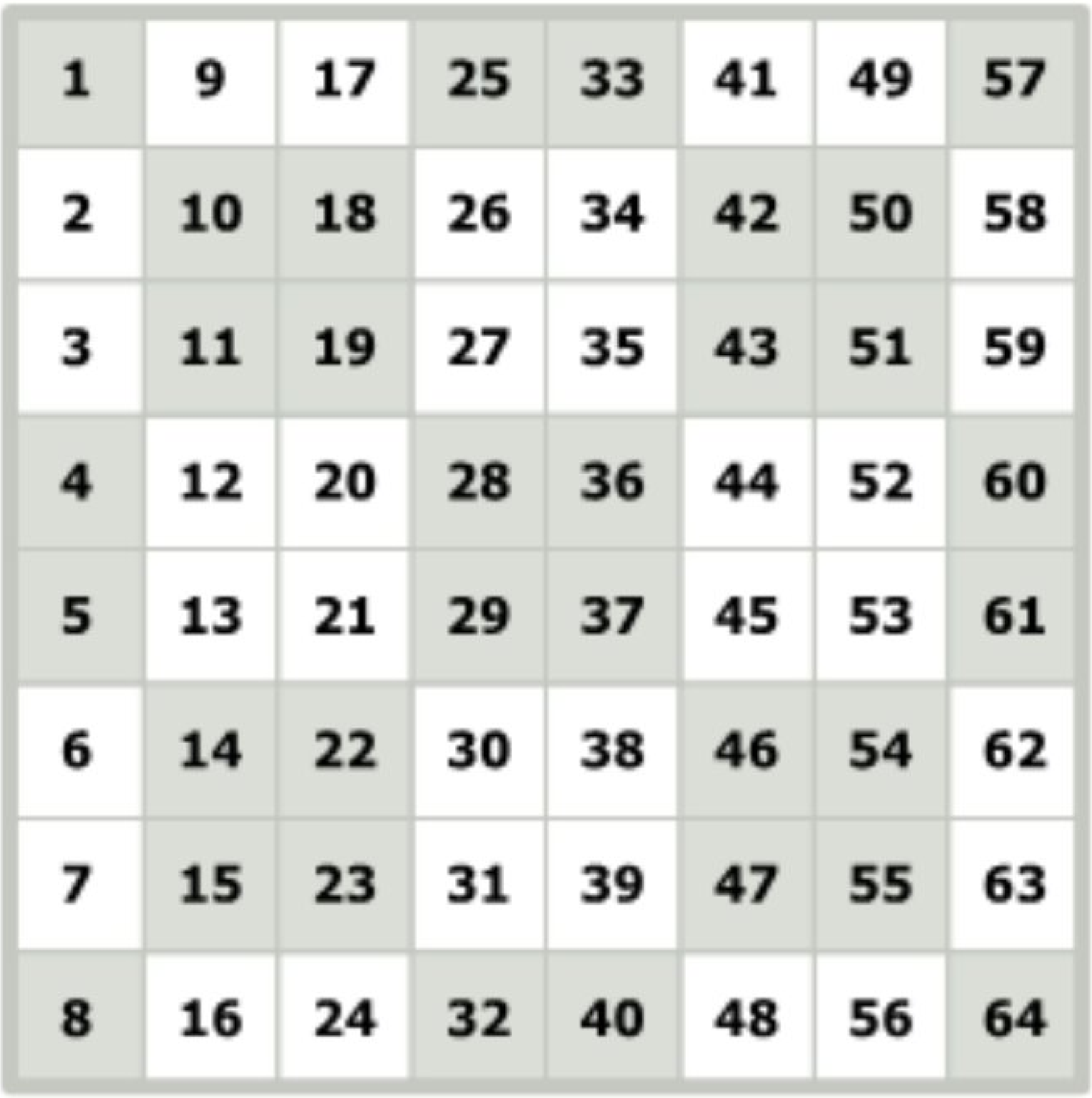
Note that -

- The Support and Resistance levels are marked here with deeper color tone!
- Square of 9 has more levels acting as Support and Resistance because it has both Cardinal and Ordinal Crosses!



57	58	59	60	61	62	63	64	65
56	31	32	33	34	35	36	37	66
55	30	13	14	15	16	17	38	67
54	29	12	3	4	5	18	39	68
53	28	11	2	1	6	19	40	69
52	27	10	9	8	7	20	41	70
51	26	25	24	23	22	21	42	71
50	49	48	47	46	45	44	43	72
81	80	79	78	77	76	75	74	73

Permanent Square



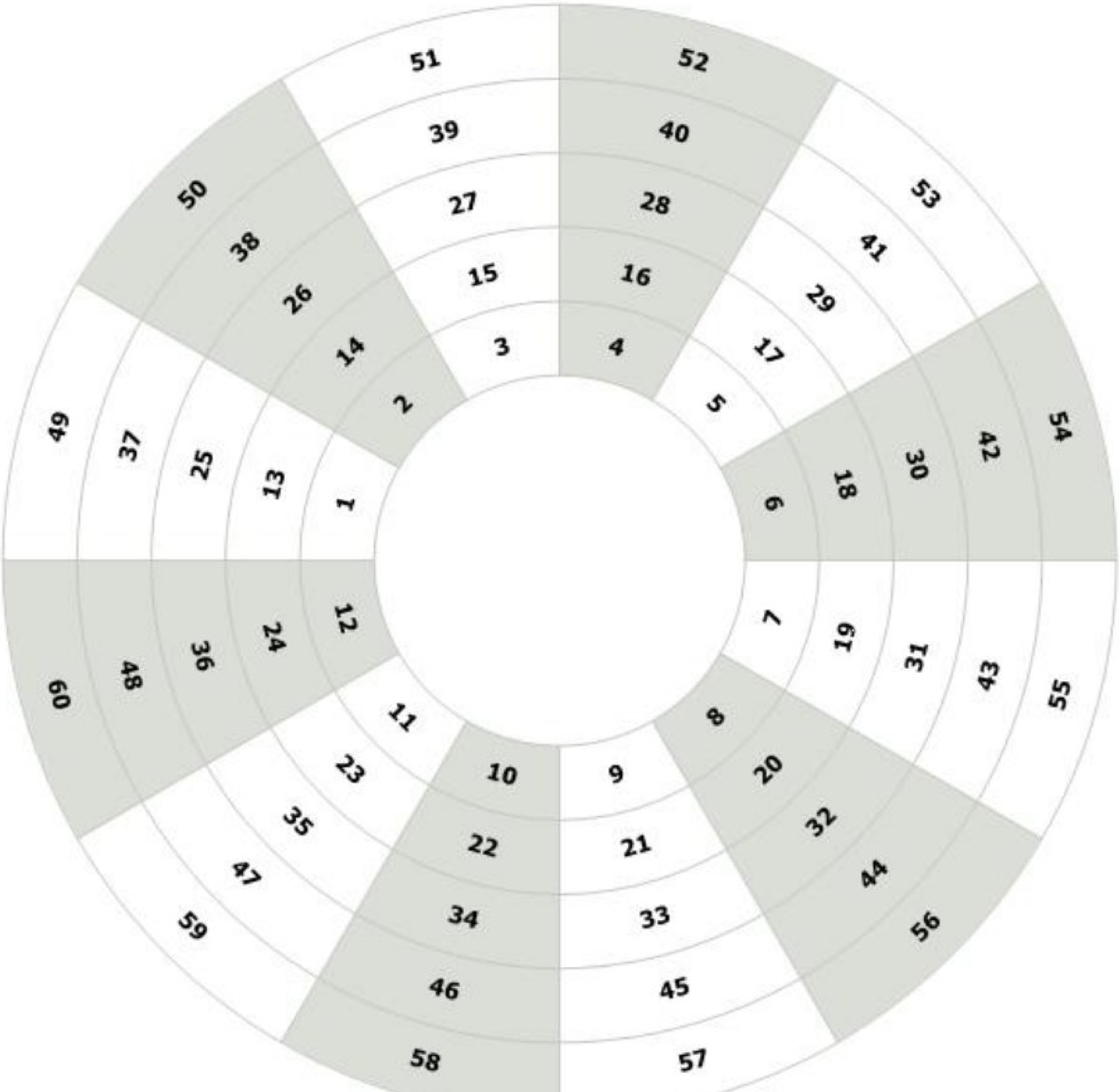
1	9	17	25	33	41	49	57
2	10	18	26	34	42	50	58
3	11	19	27	35	43	51	59
4	12	20	28	36	44	52	60
5	13	21	29	37	45	53	61
6	14	22	30	38	46	54	62
7	15	23	31	39	47	55	63
8	16	24	32	40	48	56	64

Gann Wheel variant with numbers unwinding in a side-to-side spiral resembling hallways.

Diverges from traditional patterns that expand outward from the center.

Support and Resistance levels has deeper color tone, creating a checkerboard-like appearance in the structure.

Circle of 12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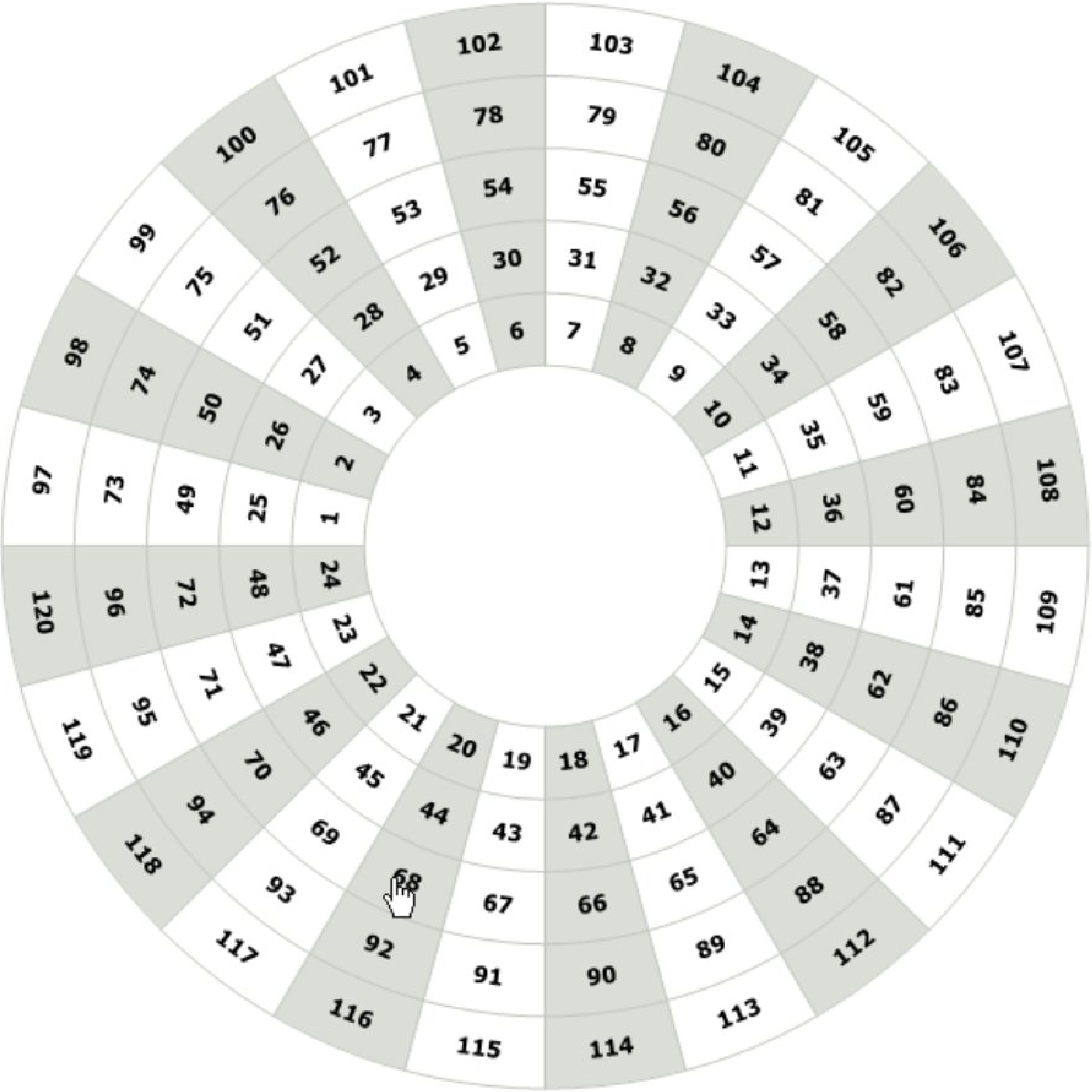
The Circle of 12 initiates the first ring/level with 12 numbers arranged in a circular manner before extending to the outer second ring/level.

This circular pattern shares a similarity with the spiral motion seen in Square Patterns of the Gann Wheel, with the distinction being the shape, which is a circle instead of a square.

Circle of 24

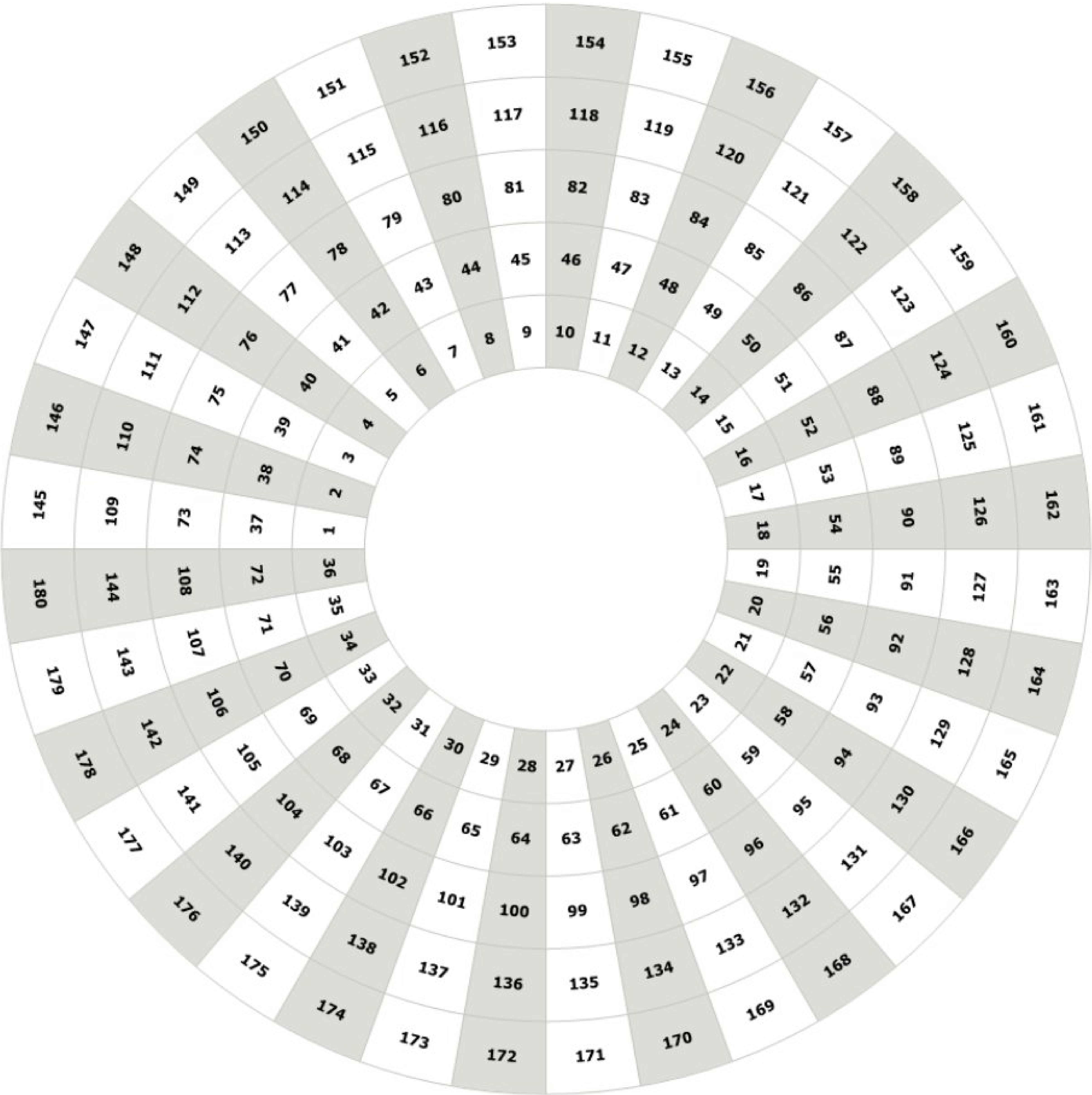

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24
25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48
49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72
73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96
97 98 99 100 101 102 103 104 105 106 107 108 109 110 111 112 113 114 115 116 117 118 119 120

The Circle of 24 consists of a primary ring/level with 24 numbers arranged in a circular pattern.

Moving outward, the subsequent rings/levels continue the spiral motion, each containing 24 numbers.

Similar to Circle of 12, the numbers next to each alternative number here acts like support and resistance!

Circle of 36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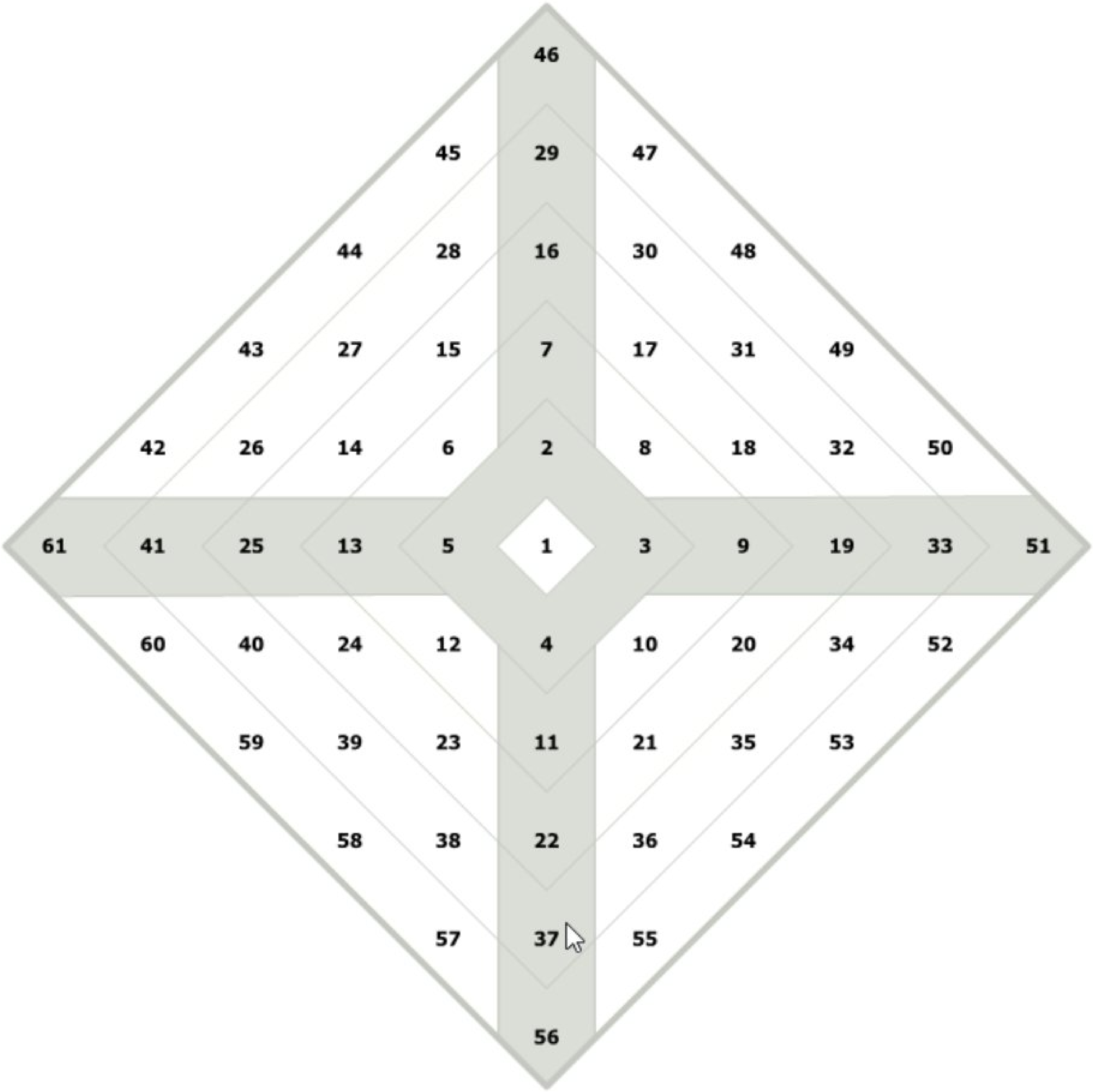
The Circle of 36 is a Gann Wheel variant featuring a circular arrangement of 36 numbers in its initial ring/level.

The complexity increases but it follows the core concept of Gann Wheels!

And, as a Gann Wheel with circular shape, each alternative number is a support or resistance!

Tetragon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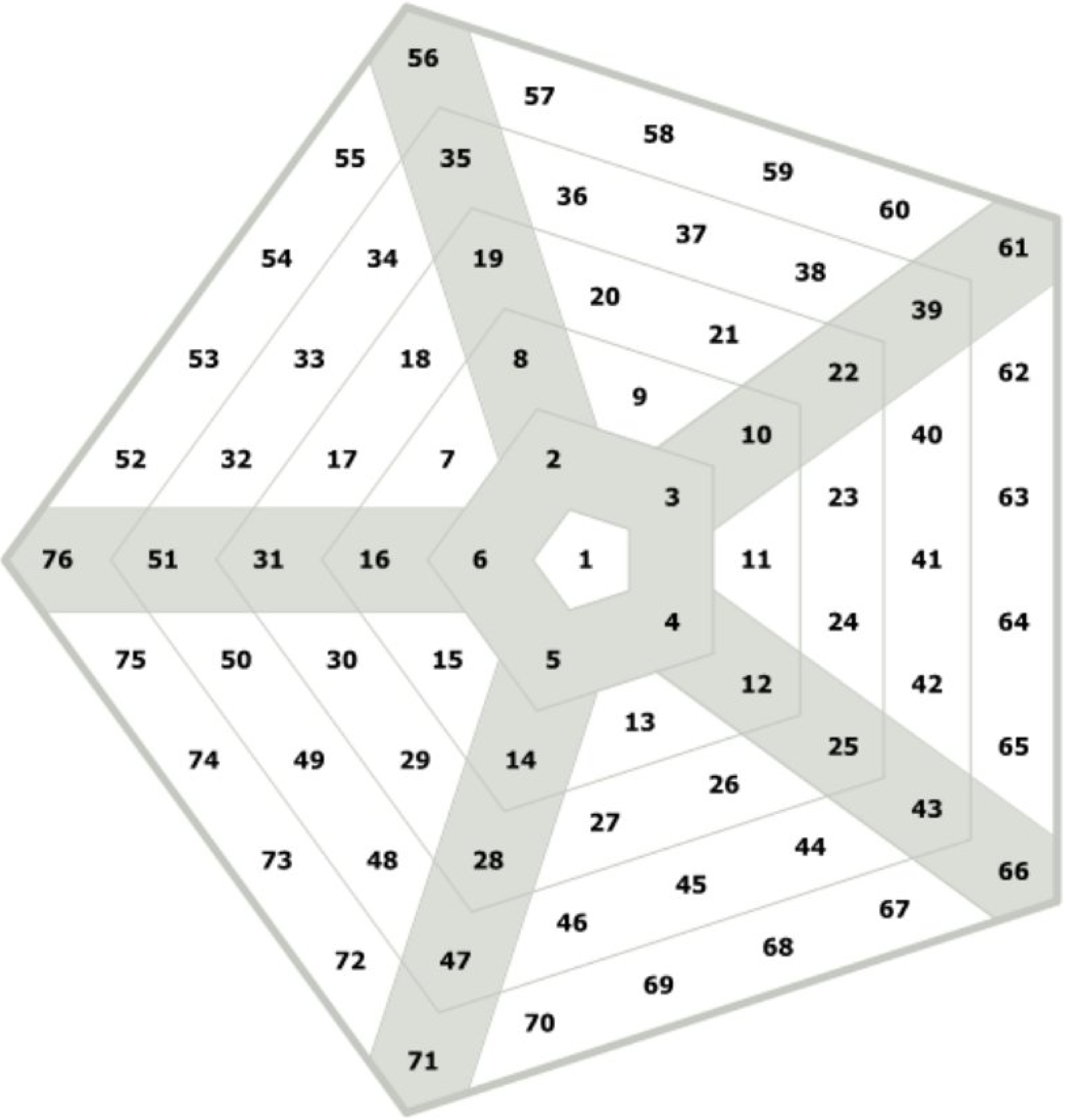
44 28 16 30 48
43 27 15 7 17 31 49
42 26 14 6 2 8 18 32 50
61 41 25 13 5 1 3 9 19 33 51
60 40 24 12 4 10 20 34 52
59 39 23 11 21 35 53
58 38 22 36 54
57 37 55
56

Now comes the concept of Tetragon.

Although Gann never mentioned about Polygons, the structure and the concurrent numbers follow all rules of Gann Time Square method!

Although the complexity increases but the core theory of dominance of nature's repetitive pattern remains same!

Pentagon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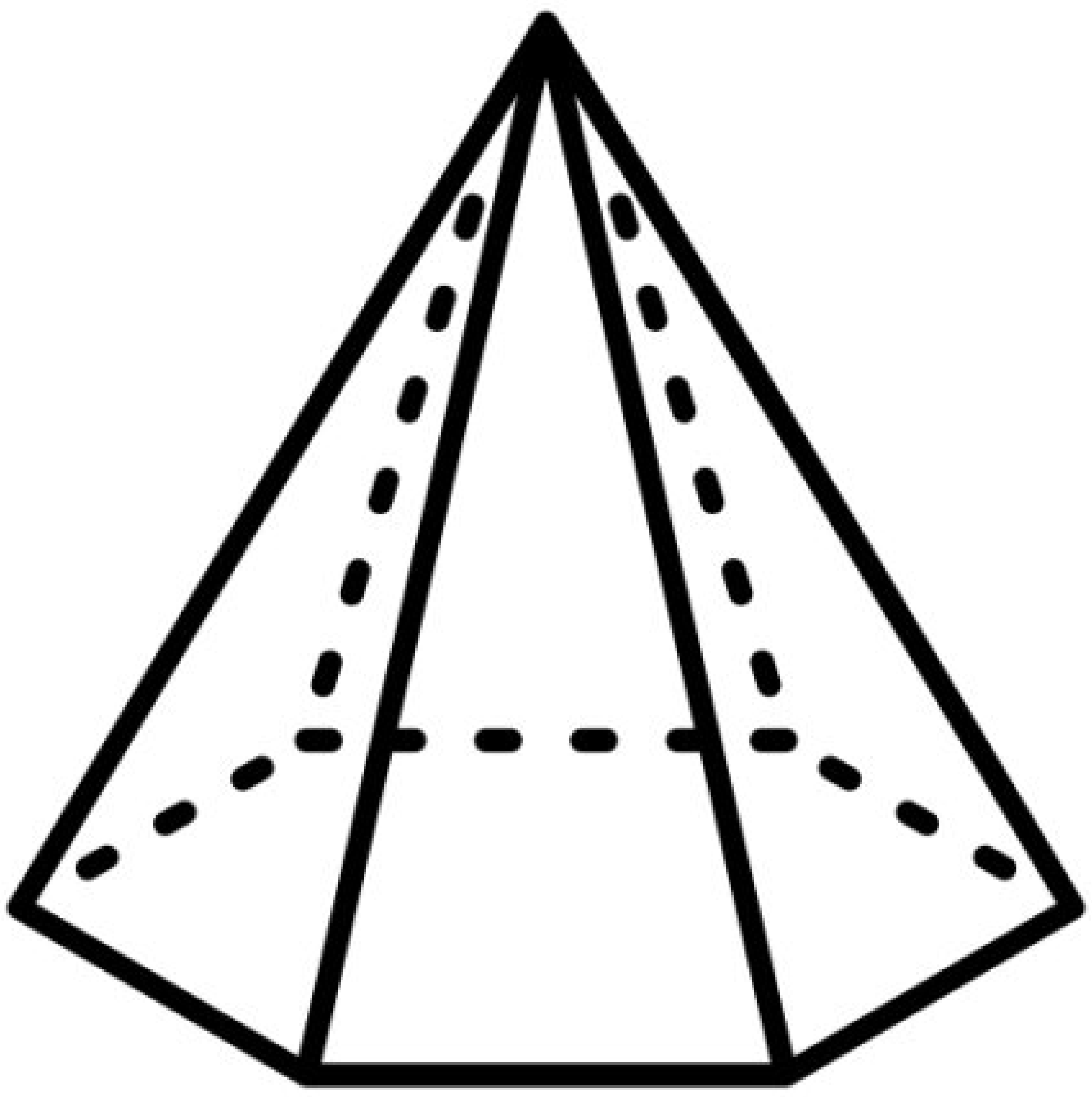
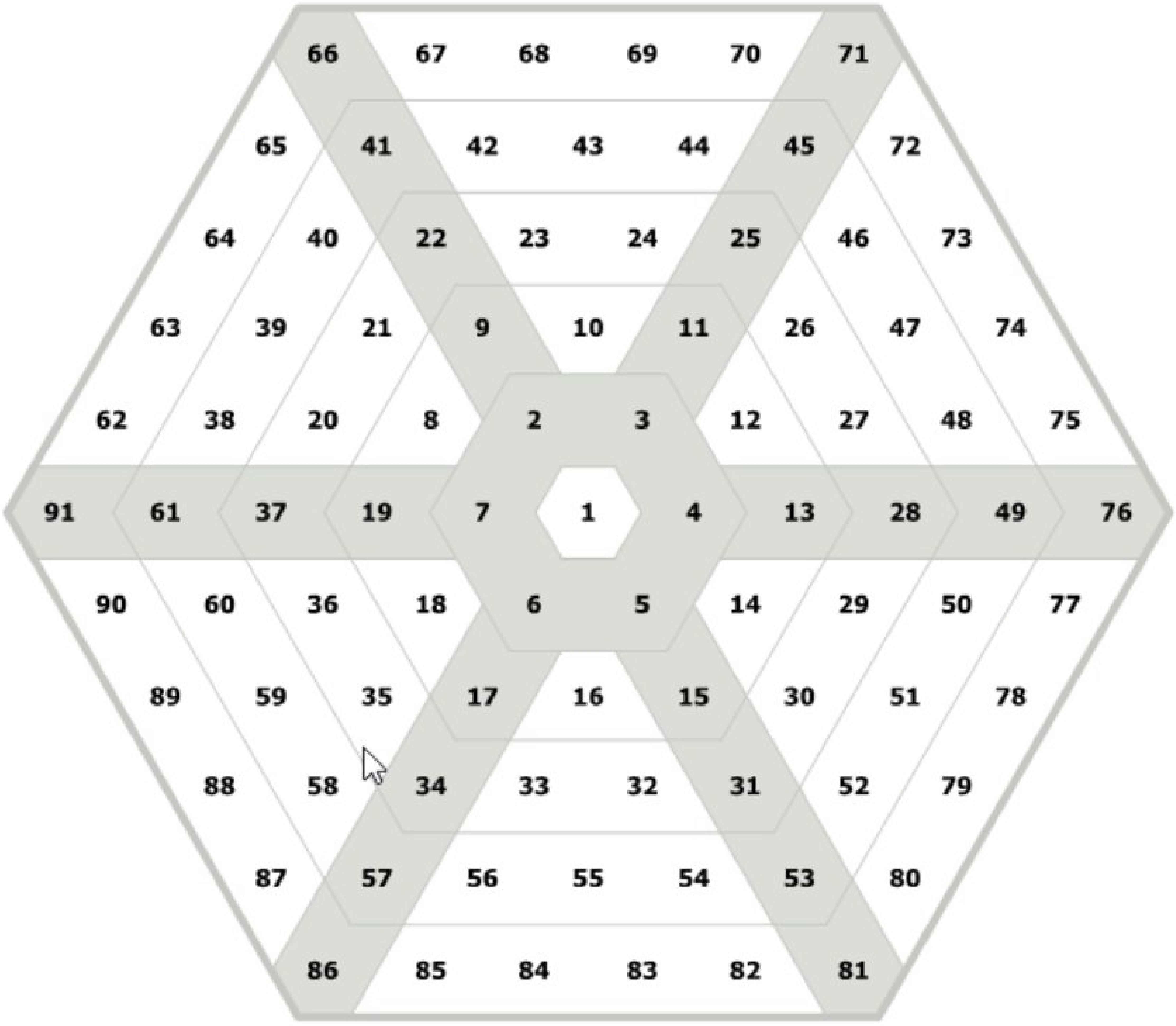
This is Pentagon.

To understand the support and resistance levels in polygons, We need to understand them in 3D.

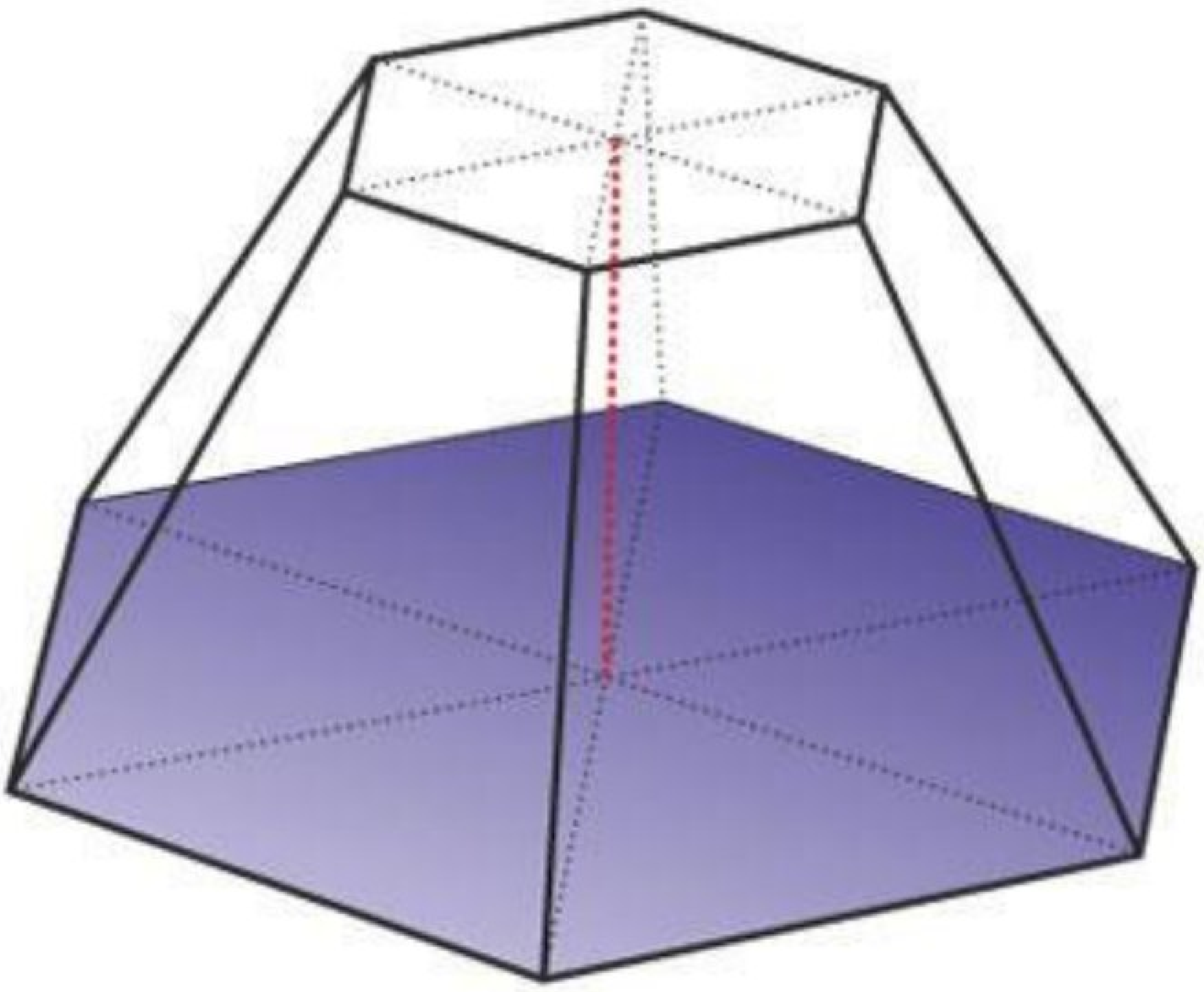


The support and resistance levels are on edges with the center being on the top.

Hexagon


66 67 68 69 70 71
65 41 42 43 44 45 72
64 40 22 23 24 25 46 73
63 39 21 9 10 11 26 47 74
62 38 20 8 2 3 12 27 48 75
91 61 37 19 7 1 4 13 28 49 76
90 60 36 18 6 5 14 29 50 77
89 59 35 17 16 15 30 51 78
88 58 34 33 32 31 52 79
87 57 56 55 54 53 80
86 85 84 83 82 81

Similarly, Hexagon represents spiral of Hexagon Pyramid with six faces!

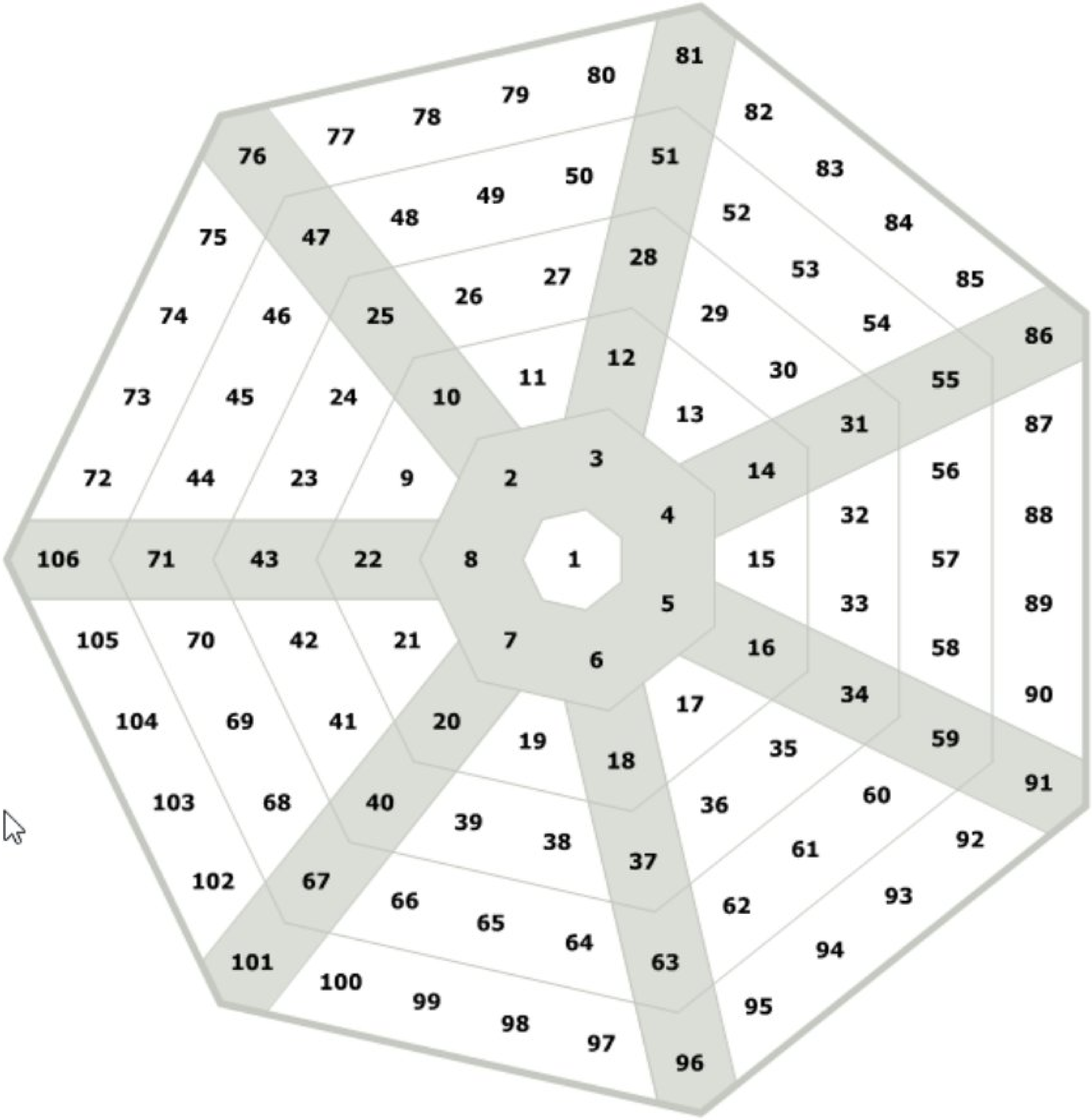


You can visualize the Hexagonal Pyramid in different ways: it can have a pointed top, a truncated top, or a flat top.

In both scenarios, the edges of the Pyramid act as support and resistance levels. What's interesting is that these Hexagonal Pyramids adhere to the principles of the Gann Wheel.

This means we can explore and analyze numbers within them in a similar manner to how we approached the Gann Square of 9.

Septagon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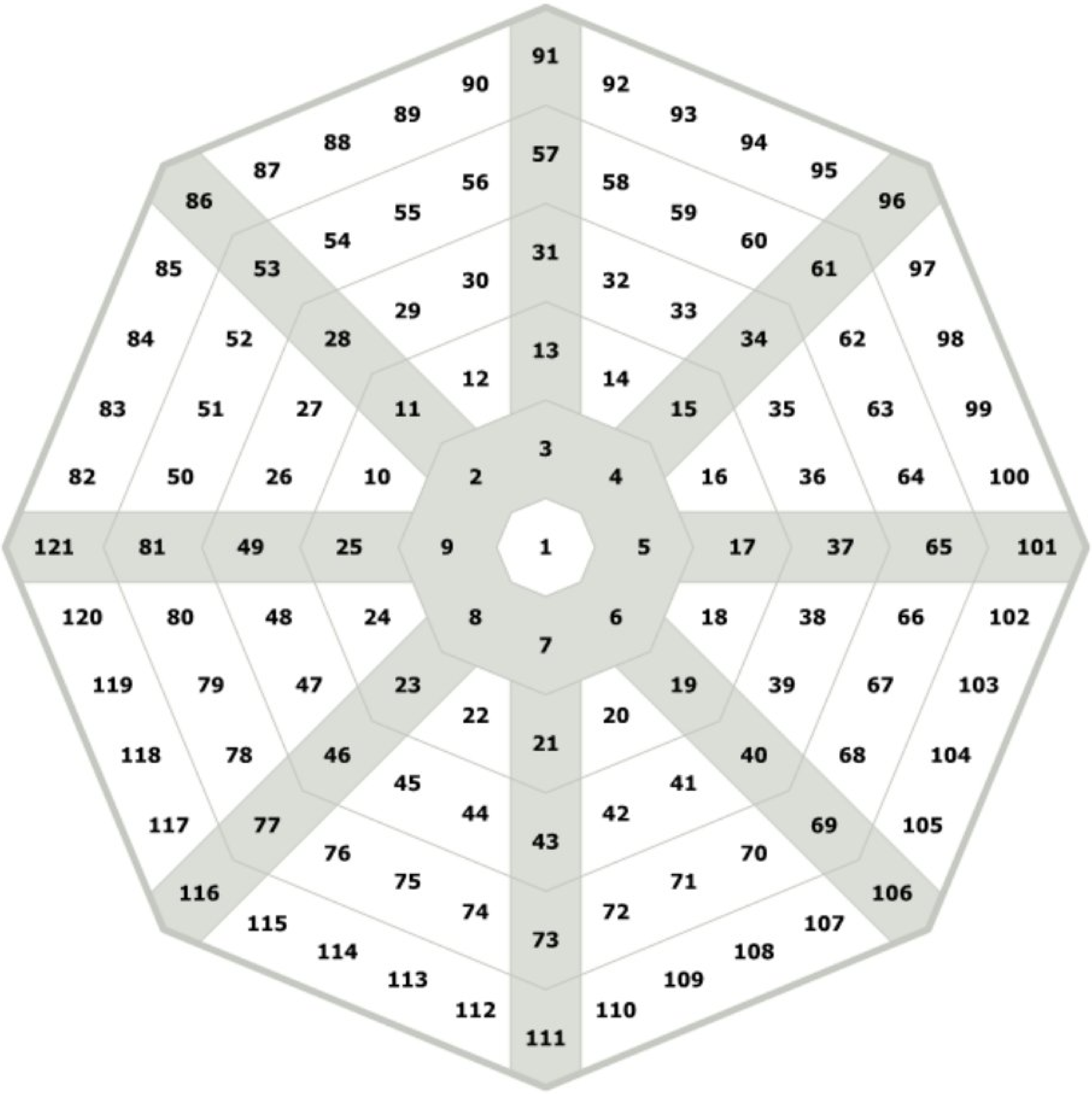
Imagine a Pyramid with seven faces!

Octagon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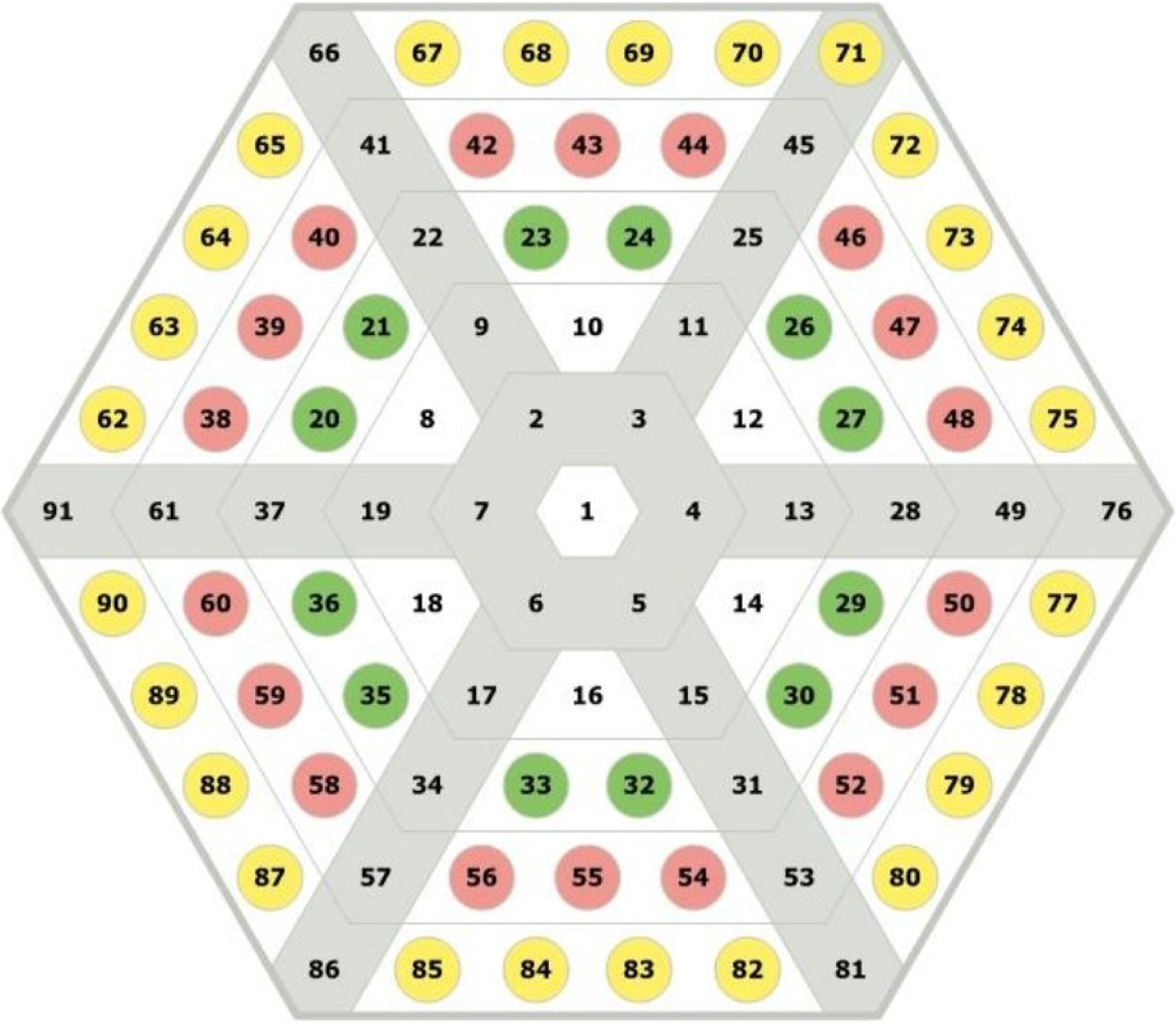
Imagine a Pyramid of eight faces!

Like circular shaped Gann Wheels, Polygonal Gann Wheel also bear few similarities -

- The 1st level of support and resistance have no numbers between them.
- The 2nd level of support and resistance have 1 number between them.
- The 3rd level of support and resistance have 2 numbers between them.
- The 4th level of support and resistance have 3 numbers between them.

And so on..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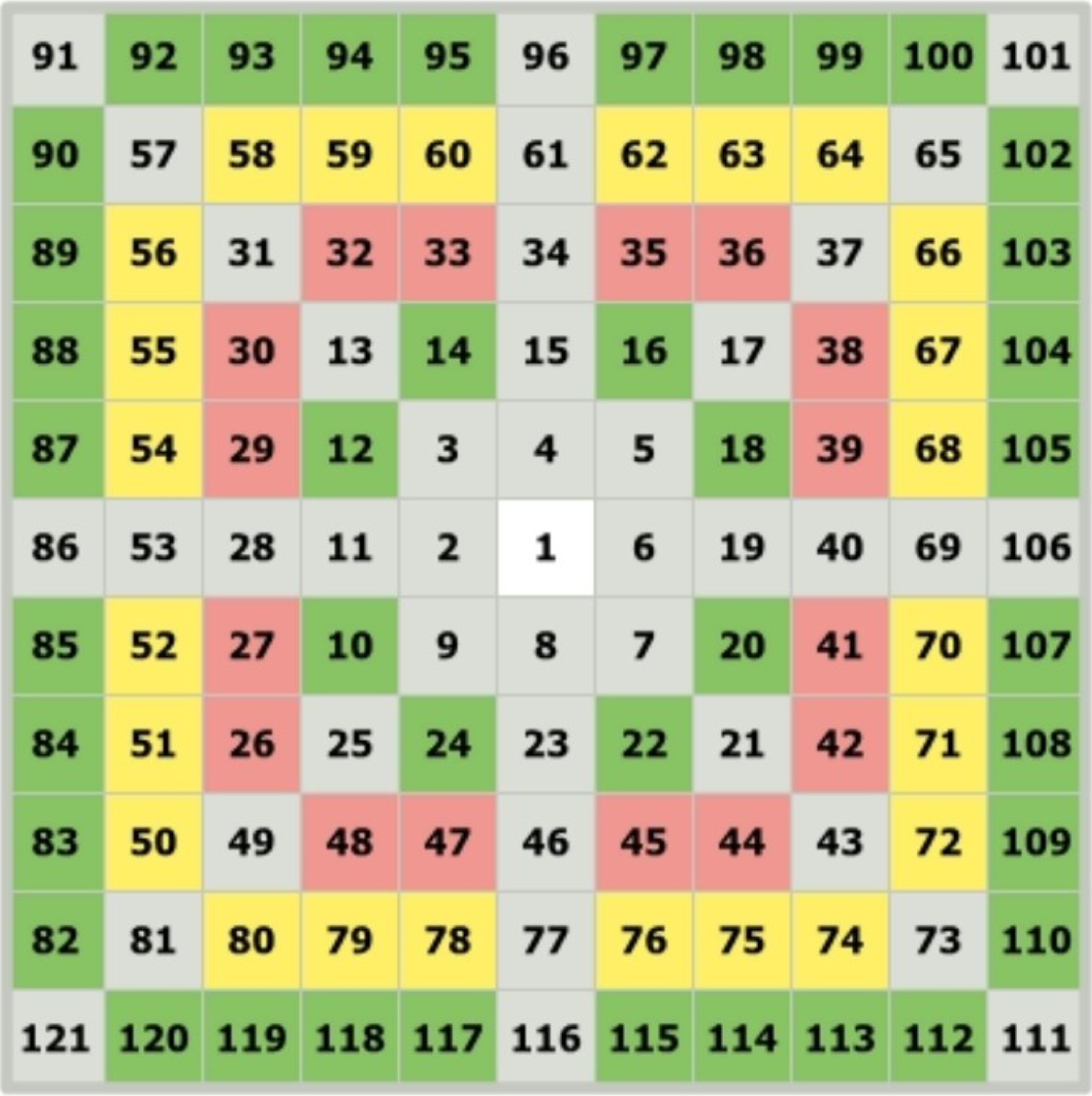
Here is a colored photo that shows different color in the numbers that lies between Cardinal and Ordinal Crosses.

The Rule of Polygons in Gann Wheels

A Square of 9 also follows the rule of the Polygons!



91	92	93	94	95	96	97	98	99	100	101
90	57	58	59	60	61	62	63	64	65	102
89	56	31	32	33	34	35	36	37	66	103
88	55	30	13	14	15	16	17	38	67	104
87	54	29	12	3	4	5	18	39	68	105
86	53	28	11	2	1	6	19	40	69	106
85	52	27	10	9	8	7	20	41	70	107
84	51	26	25	24	23	22	21	42	71	108
83	50	49	48	47	46	45	44	43	72	109
82	81	80	79	78	77	76	75	74	73	110
121	120	119	118	117	116	115	114	113	112	111

- The 1st level of support and resistance have no numbers between them. It is the Apex Value 1 which is marked as white color here.
- The 2nd level of support and resistance have 1 number between them. These numbers are marked here as green.
- The 3rd level of support and resistance have 2 numbers between them. These numbers are marked here as red.
- The 4th level of support and resistance have 3 numbers between them. These numbers are marked here as yellow.

Square of 4 and Permanent Square and the Circles do not follow this rule. They are not Gann Wheel. Neither they follow any other properties. They also cannot be Gann Pyramids.

Those shapes and interpretations came from other traders who studied Gann further and made their own modified patterns with rules.

All Polygonal Gann Wheels are modelled after Pyramids. Pyramids have apex i.e., Pyramids are pointy!

The Gann Square of 4 generates Pyramid with its top cut off like flat surface. It is not significant enough.

Also, Circle shaped Gann Wheels do not have much significance as the Support and Resistance lies on each alternative numbers!

Intraday Pivot Points from Gann Square of 9

Remember our Last Problem? Let's say the LTP of a stock is 5152. Let's generate a Gann Square of 9 based on this. But this time, instead of positional pivot points, we will do it for intraday!

Time Frames

Our Initial Gann Square of 9 Calculator was targeting daily timeframe and hence 45 degrees.

The higher the time frame, the higher the stop loss, the higher the reward.

Similarly dealing with lower time frame minimizes the reward, but We deal with various smaller time frames even in candlestick charting like 1 hour, 30 mins for intraday to minimize our risk.

Because risk is the first parameter to check!

In Gann Theory, A movement in one day is movement of 45 degree!

So, Similarly, we can also divide the 45 degree in 22.5 degree, 11.25 degree. The daily timeframe is the most important time frame in theory of Gann as well as in many other theories.

A day signifies the duration it takes for Earth to complete a full rotation on its axis. This measurement holds immense significance as the primary time unit for us, the inhabitants of Earth!

In this case, Like discussed above, **We will recreate the entire Gann Square of 9 but with 22.5 degree as a base.** It will give support and resistance level in lower time frames, specifically, time frame of 12 hours.

Deviations

Here are the deviations -

1. The first 9 values will deviate from each other by **22.5 degrees.**
2. Now, to get the apex value i.e. the center value from LTP, We need to rotate the Gann Wheel by minimum **360 degrees!**

It was **45 degrees and 720 degrees** respectively in the calculations of Gann Square of 9 with 45 degrees as a base!

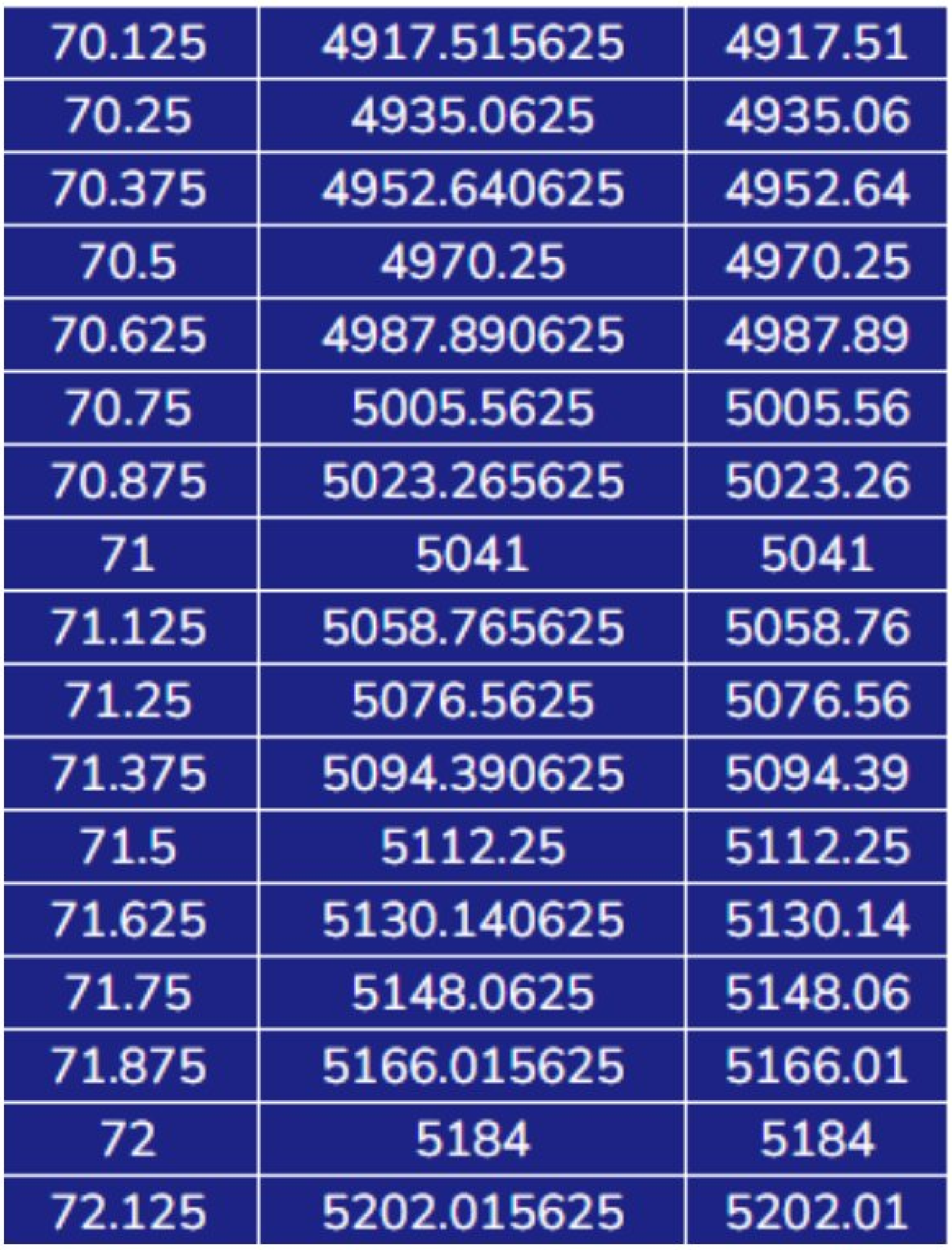
#1 Getting Apex

First, we shall apply the Square of Odds property.

We need to find nearest odd number which is a Perfect Square.

- Square root of 5152 = 71.77743378
- Rotation of 360 degree = 71.77743378-2 = 69.77743378
- Round up = 70
- Square of 70 = 4900

#2 Fill the Squares



70.125	4917.515625	4917.51
70.25	4935.0625	4935.06
70.375	4952.640625	4952.64
70.5	4970.25	4970.25
70.625	4987.890625	4987.89
70.75	5005.5625	5005.56
70.875	5023.265625	5023.26
71	5041	5041
71.125	5058.765625	5058.76
71.25	5076.5625	5076.56
71.375	5094.390625	5094.39
71.5	5112.25	5112.25
71.625	5130.140625	5130.14
71.75	5148.0625	5148.06
71.875	5166.015625	5166.01
72	5184	5184
72.125	5202.015625	5202.01

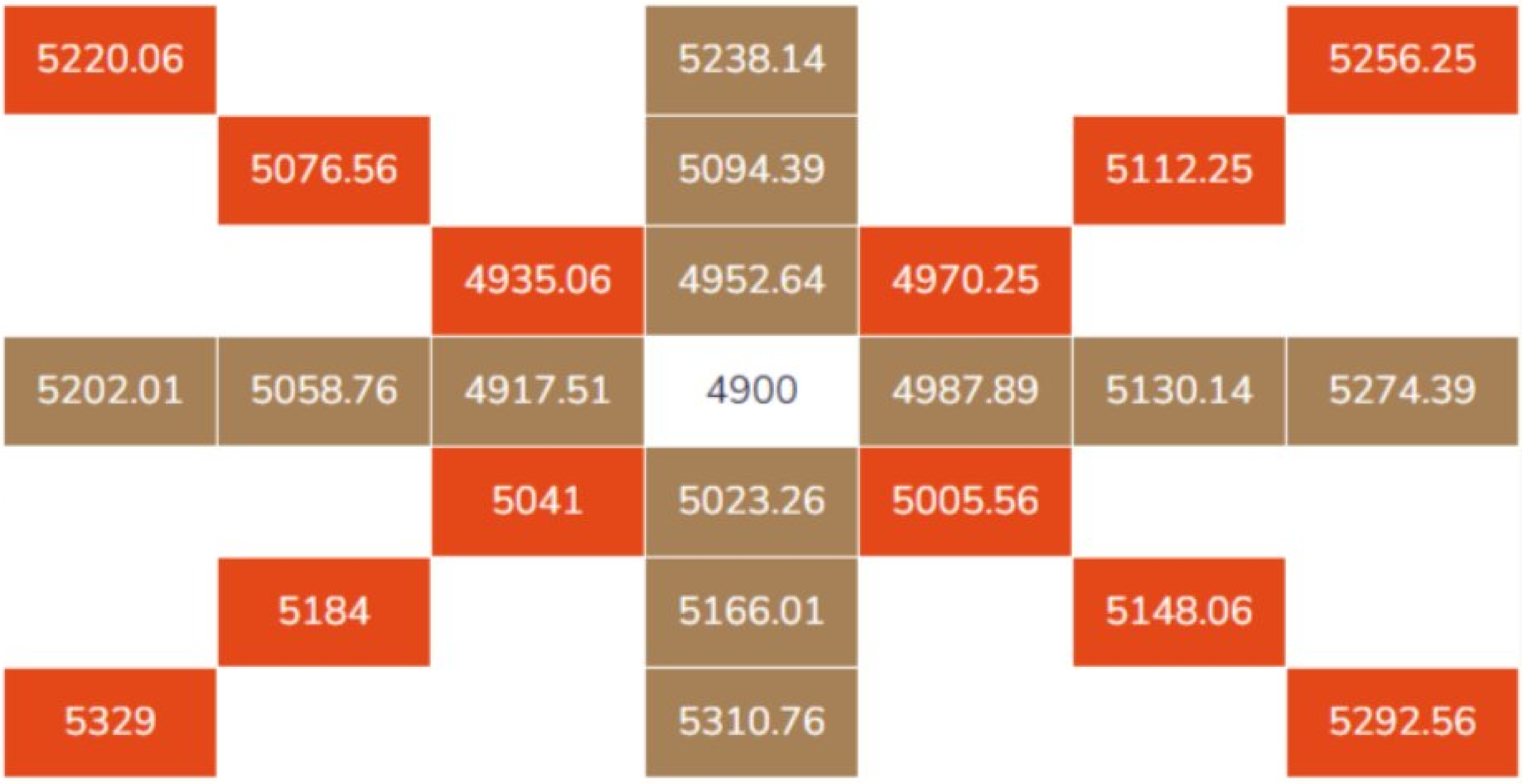
Now, Let’s generate the squares by rotating 22.5 degree.

We know, if 2 represents a 360-degree rotation, .125 represents 22.5 degree!

- So, Let’s add .125 to 70.
- Square the number.
- Instead of rounding down to no decimals. Let’s have it rounded till last two digits.

Let’s keep rotating the numbers to get all the values of Gann Square of 9

#3 Beautify

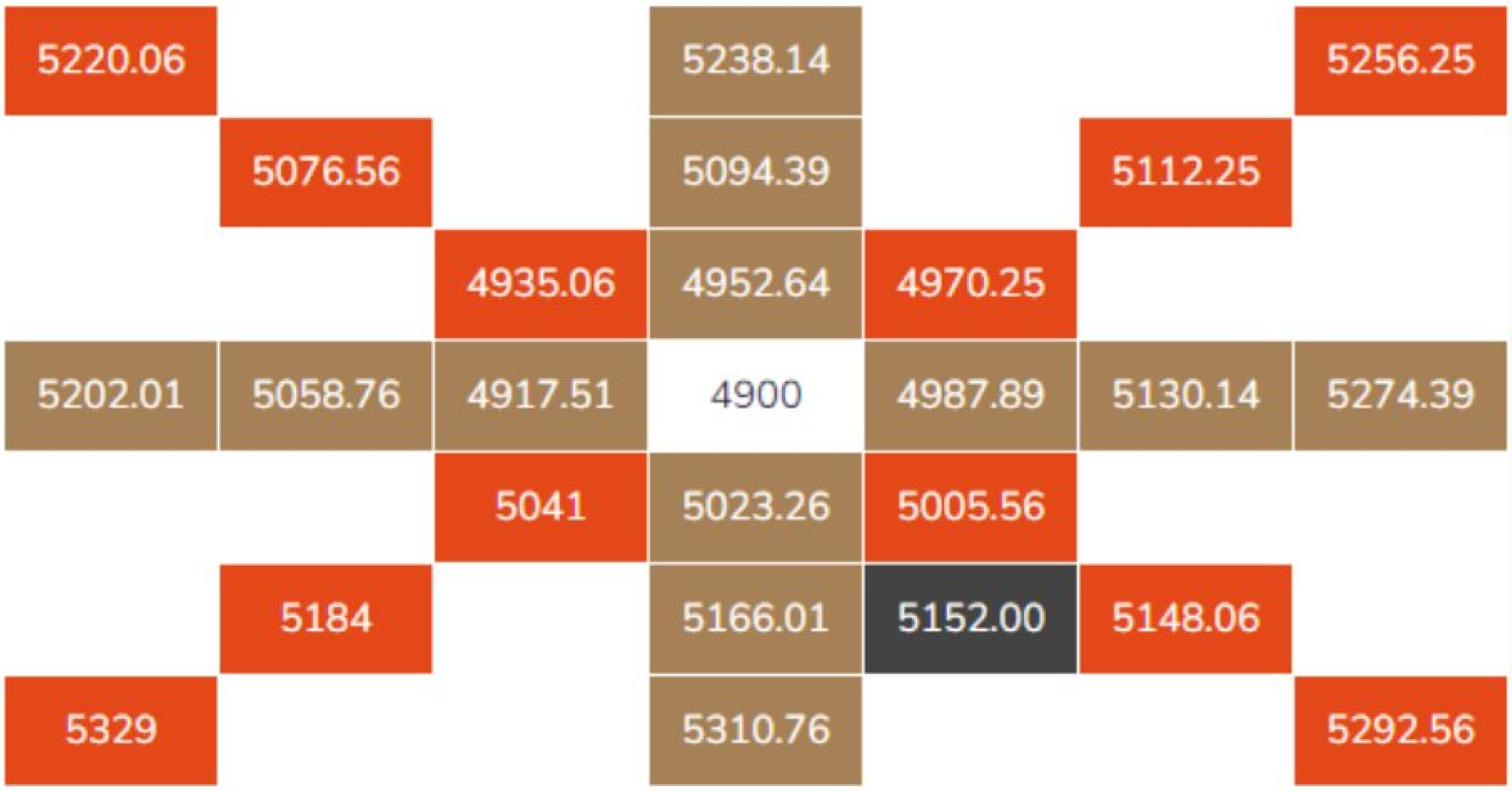


5220.06			5238.14			5256.25
	5076.56		5094.39		5112.25	
		4935.06	4952.64	4970.25		
5202.01	5058.76	4917.51	4900	4987.89	5130.14	5274.39
		5041	5023.26	5005.56		
	5184		5166.01		5148.06	
5329			5310.76			5292.56

The numbers which are not in the Cardinal or Ordinal Cross are not important.

Let's leave them blank. Fill the numbers of Cardinal and Ordinal Cross from previous calculation.

The Solution



5220.06			5238.14			5256.25
	5076.56		5094.39		5112.25	
		4935.06	4952.64	4970.25		
5202.01	5058.76	4917.51	4900	4987.89	5130.14	5274.39
		5041	5023.26	5005.56		
	5184		5166.01	5152.00	5148.06	
5329			5310.76			5292.56

Now, We have to put our number 5152 in the chart.

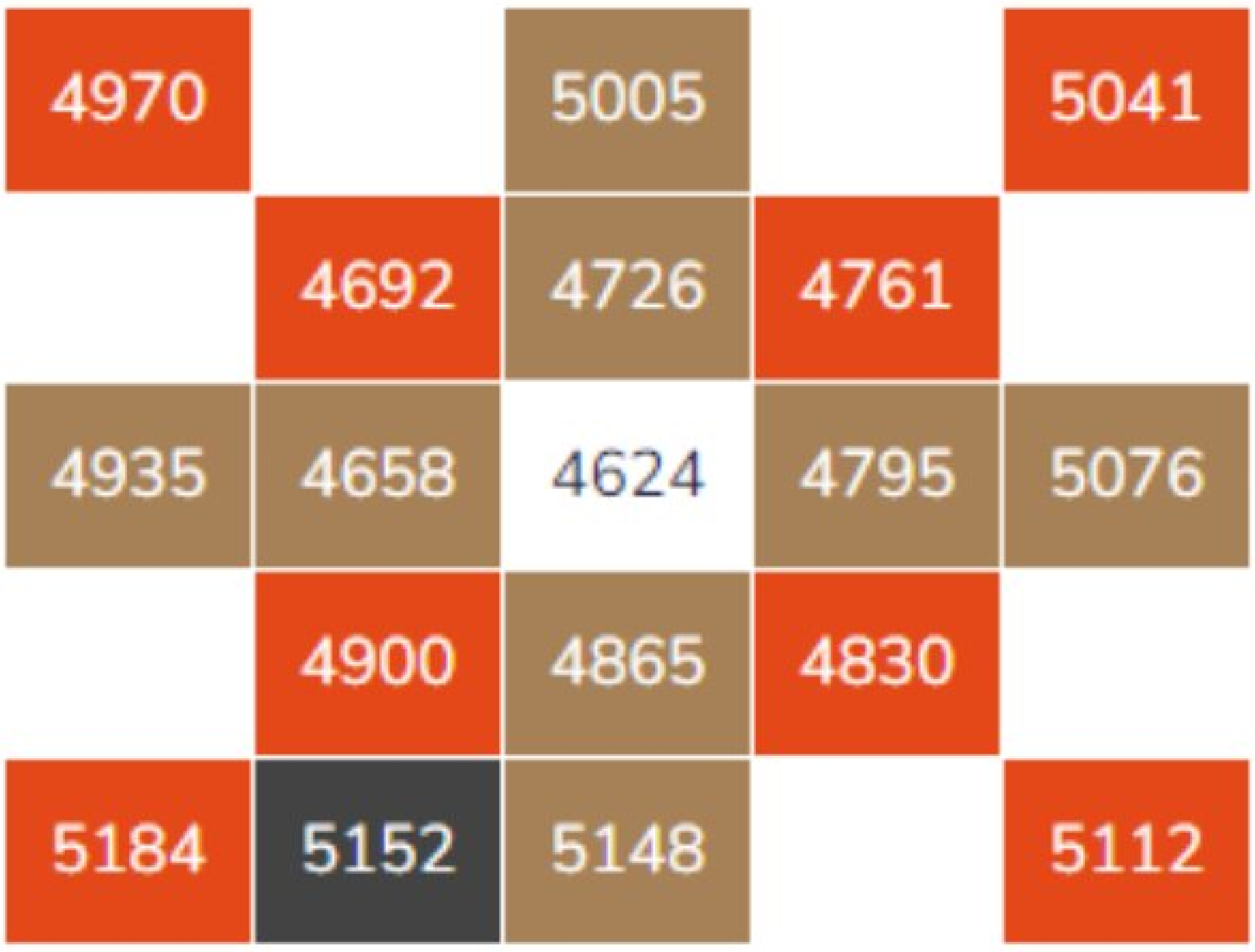
Find the Cardinal and Ordinal Cross between which the number fits.

From the Gann Wheel in the left side, we can see -

- 5148 is Support.
- 5166 is Resistance.

In the Gann Square of 9, With the base of 22.5 degree as a base, 5148 is Support and 5166 is resistance.

Comparing The Solutions



4970		5005		5041
	4692	4726	4761	
4935	4658	4624	4795	5076
	4900	4865	4830	
5184	5152	5148		5112

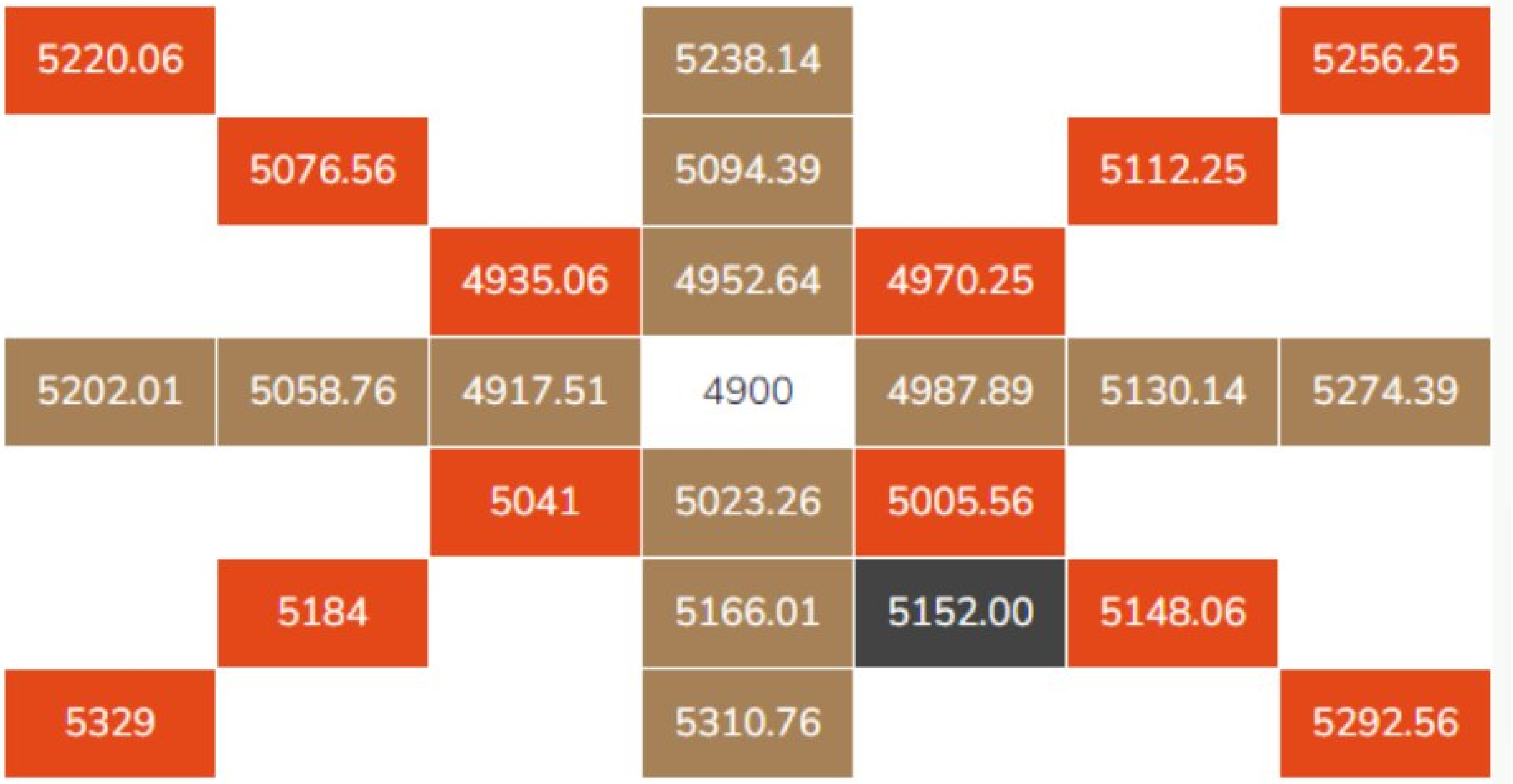
In the case of 45 degree as a base, 5148 is Support and 5184 is Resistance.

Hence,

the Range of entry/exit became small in intraday as Resistance is reduced giving us more opportunities and lesser risks (and, lesser rewards.)

Trading System

How to execute trades based on this system



5220.06			5238.14			5256.25
	5076.56		5094.39		5112.25	
		4935.06	4952.64	4970.25		
5202.01	5058.76	4917.51	4900	4987.89	5130.14	5274.39
		5041	5023.26	5005.56		
	5184		5166.01	5152.00	5148.06	
5329			5310.76			5292.56

To do intraday trades based on this system,

You need to take the LTP of the index or stock after 9:05AM i.e. the opening time in the morning!

Ideally You should take the Weighted Average Price between 9:00 AM - 9:15 AM (Pre-market Range) because of volatility caused due to price discovery in the initial minutes.

However, after 9:30 AM, You can just take the LTP!

This is in context of Indian Share Market when the pre-market starts from 9:00 AM and the market starts from 9:15 AM.

This system is not developed by Gann. It merely shows a vague use case for Gann Square of 9 Calculator with 22.5 degree as a base.

How to find Targets

Once We are done making our Gann Square, We know the buy and sell levels from the support and resistances.

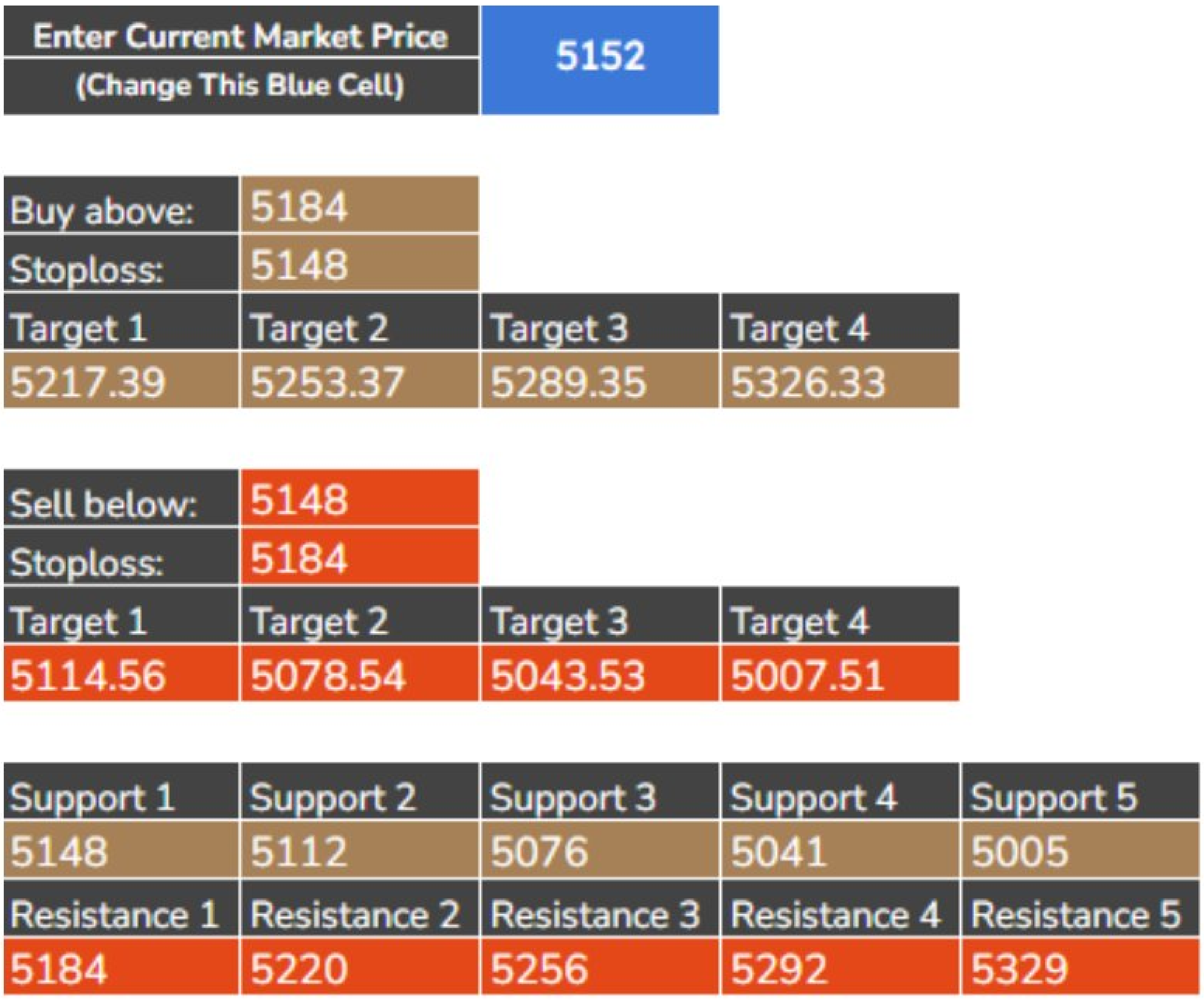
But how to find targets?

Use the same numbers as Pivots i.e. The resistance level will become target if buy trade is triggered.

The support level will become target if sell trade is triggered.

Keeping slight versatility, Let’s keep the Targets at 99.95% of resistance and 100.05% of support! So -

- Target for Buy Trade = Res * 0.9995
- Target for Sell Trade = Sup * 1.0005



Enter Current Market Price **(Change This Blue Cell)**	**5152**

Buy above:	5184		
Stoploss:	5148		
Target 1	Target 2	Target 3	Target 4
5217.39	5253.37	5289.35	5326.33

Sell below:	5148		
Stoploss:	5184		
Target 1	Target 2	Target 3	Target 4
5114.56	5078.54	5043.53	5007.51

Support 1	Support 2	Support 3	Support 4	Support 5
5148	5112	5076	5041	5005
Resistance 1	Resistance 2	Resistance 3	Resistance 4	Resistance 5
5184	5220	5256	5292	5329

So far, you have learnt -

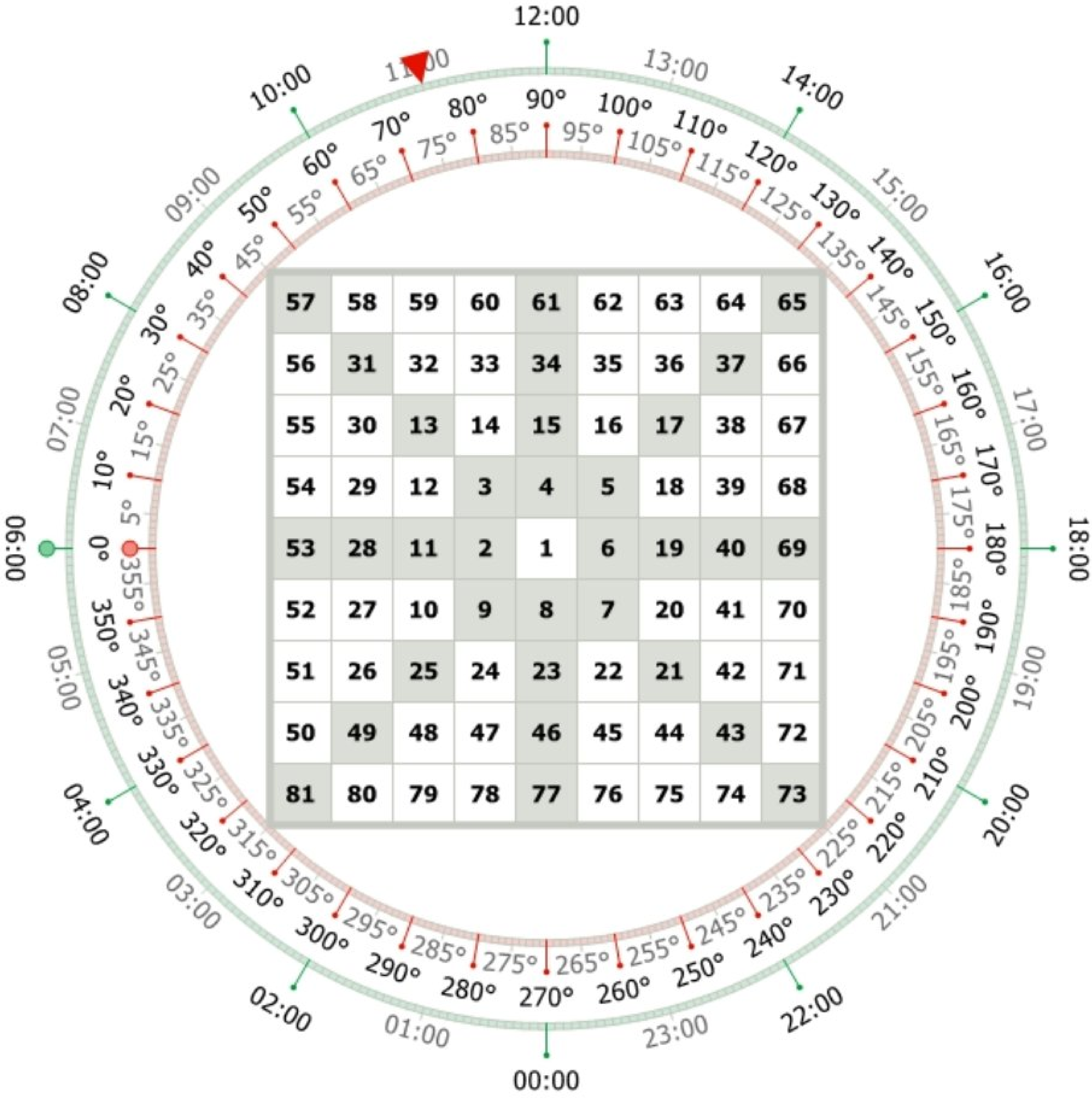
- The concept of Time frames in Gann Theory on context of construction of the Gann Squares.
- How to create Gann Square of 9 calculator of Size 3 by using a base of 22.5 degree to get Intraday Pivot Points.

Chronometer

Time, an intangible force that guides our lives, is something we constantly measure and rely upon. From the rhythm of our daily routines to the coordination of global events, the concept of time is omnipresent. At the heart of this measurement lies an ingenious invention - the chronometer.

The chronometer, a word derived from the Greek words "chronos" (time) and "metron" (measure), is a marvel of precision engineering.

On the outer circumference of the Gann Square of 9, we find the addition of degree marks, meticulously placed by W.D. Gann. Notably, the 0° - 360° mark finds its position on the center right side of the square.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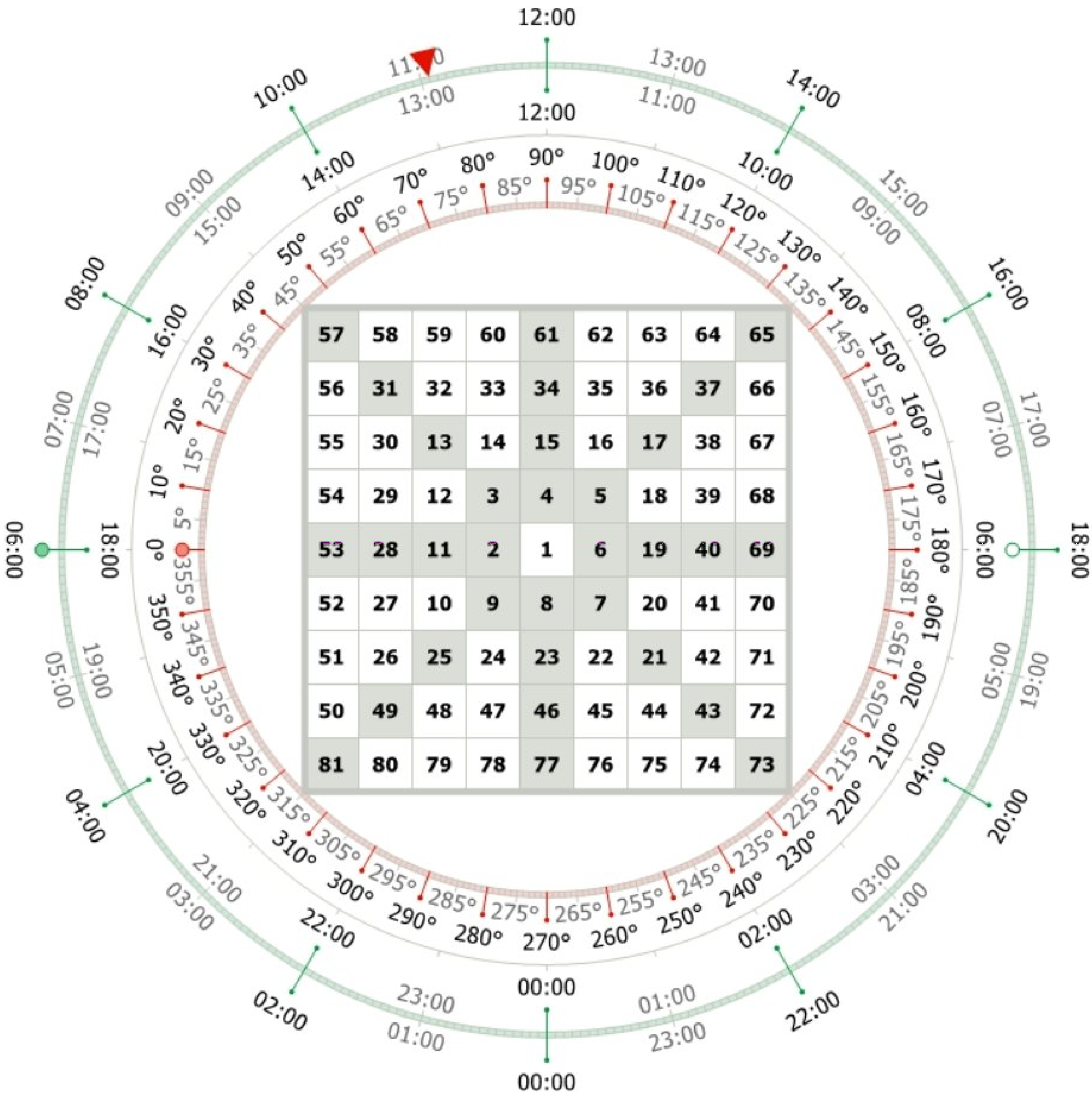
57	58	59	60	61	62	63	64	65
56	31	32	33	34	35	36	37	66
55	30	13	14	15	16	17	38	67
54	29	12	3	4	5	18	39	68
53	28	11	2	1	6	19	40	69
52	27	10	9	8	7	20	41	70
51	26	25	24	23	22	21	42	71
50	49	48	47	46	45	44	43	72
81	80	79	78	77	76	75	74	73

Now, alongside these degree indicators, W.D. Gann incorporated significant temporal markers, including dates throughout the year and the 24-hour division of each day.

This circle is known as Chronometer in Gann Square of 9. The above chronometer is showing the “Time” as its Range. W.D. Gann's meticulous attention extends even to the division of a day's 24 hours. So, we can extend it to 24 hours using a secondary scale -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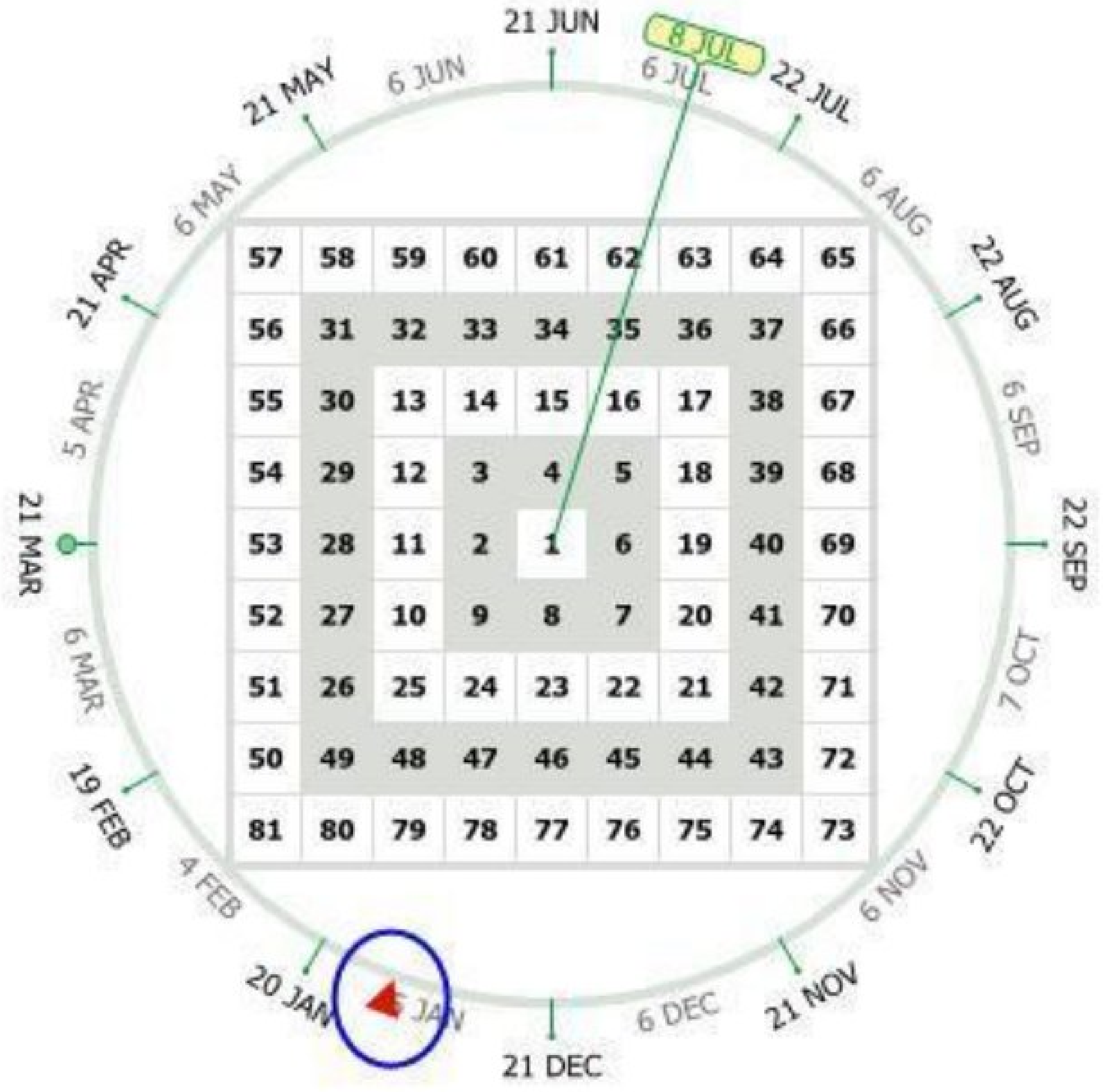
57	58	59	60	61	62	63	64	65
56	31	32	33	34	35	36	37	66
55	30	13	14	15	16	17	38	67
54	29	12	3	4	5	18	39	68
53	28	11	2	1	6	19	40	69
52	27	10	9	8	7	20	41	70
51	26	25	24	23	22	21	42	71
50	49	48	47	46	45	44	43	72
81	80	79	78	77	76	75	74	73

Revisiting the rules of Astrology,

- Earth completes a 360-degree rotation to complete 1 day.
- 1 day has 24 hours and hence 24x60 minutes.
- Earth takes 4 minutes to rotate 1 degree.

Starting at 6:00 a.m. (6AM is chosen as a base because average sunrise occurs on that time only.) at the 0° - 360° mark, he evenly divides the 360 four-minute increments around the circle. This thoughtful division offers a comprehensive view of each day's progression.

Now, If the Chronometer’s Range is changed to “Annual”, We get this -


21 JUN
8 JUL
6 JUL
22 JUL
6 AUG
22 AUG
6 SEP
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7 OCT
22 OCT
6 NOV
21 NOV
6 DEC
21 DEC
5 JAN
20 JAN
4 FEB
19 FEB
6 MAR
21 MAR
5 APR
21 APR
6 MAY
21 MAY
6 JUN

57	58	59	60	61	62	63	64	65
56	31	32	33	34	35	36	37	66
55	30	13	14	15	16	17	38	67
54	29	12	3	4	5	18	39	68
53	28	11	2	1	6	19	40	69
52	27	10	9	8	7	20	41	70
51	26	25	24	23	22	21	42	71
50	49	48	47	46	45	44	43	72
81	80	79	78	77	76	75	74	73

- The Spring Equinox on March 21 is aligned on 0° - 360°.
- The Summer Solstice on June 21 is assigned to 90°.
- The Autumnal Equinox on September 22 is positioned on 180°.
- The Winter Solstice on December 21 is placed on 270°.

This configuration doesn't evenly divide the dates across the square.

- From the Spring Equinox to the Summer Solstice, a span of 92 days is observed.
- Subsequently, from the Summer Solstice to the Autumnal Equinox, 93 days transpire.
- The period from the Autumnal Equinox to the Winter Solstice encompasses 90 days.
- Interestingly, the journey from the Winter Solstice back to the Spring Equinox accounts for 90 days, except in a leap year.
- This culminates in a total of 365 days (92+93+90+90).

Cosmogram

In the vast expanse of the cosmos, mysteries abound, and humans have long sought to understand their place within the grand design of the universe. Among the various tools and concepts that have emerged to unravel these mysteries, the cosmogram stands as a remarkable and profound representation of the celestial blueprint.

Cosmic Reflections in Patterns

A cosmogram, often referred to as a "cosmic diagram," is a visual representation that encapsulates the intricate interplay between celestial bodies, time, and the human experience.

It serves as a symbolic bridge that connects the macrocosm of the universe with the microcosm of individual lives.

Just as the ancient practice of astrology explores the influence of celestial bodies on human destinies, the cosmogram delves into the profound connections that weave through space and time.

Historical Roots and Cultural Significance

The concept of the cosmogram is deeply rooted in cultures and civilizations across the world. From the elaborate mandalas of Eastern traditions to the intricate astrolabes of the Islamic Golden Age, diverse cultures have sought to capture the essence of cosmic order through visual representations.

Astrology, Astronomy, and Time

One of the most prevalent uses of the cosmogram is in the realm of astrology. Astrological cosmograms, commonly known as birth charts or natal charts, map the positions of planets and other celestial bodies at the exact moment of an individual's birth. These charts are interpreted to reveal insights into personality traits, life events, and potential paths.

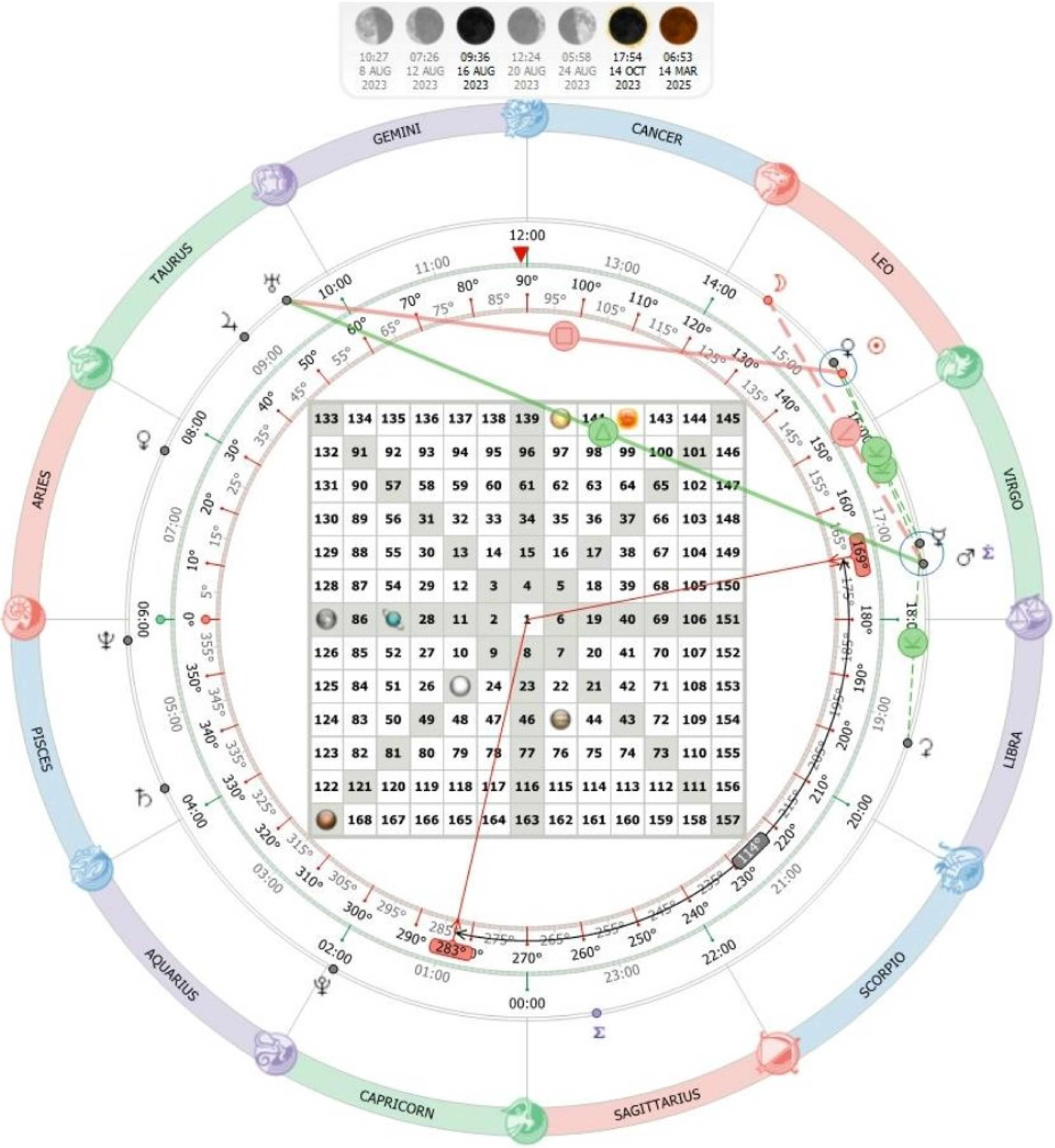
Astronomy, too, finds its reflection in the cosmogram. Celestial events such as equinoxes, solstices, and planetary alignments can be integrated into these diagrams, allowing for a deeper exploration of cosmic cycles and their impact on Earth.

Time, an ever-flowing river that carries us through existence, is intricately woven into the fabric of the cosmogram.

Through careful calculations and alignments, the cosmogram reflects the passage of time and the cyclical patterns that govern the universe.

Cosmogram in Gann Square of 9

Incorporating the signs of the zodiac and compass directions into this comprehensive framework, W.D. Gann weaves a tapestry that interconnects time, space, and celestial occurrences within the Gann Square of 9. In this below figure, the "Cosmogram" is also overlaid.


10:27 8 AUG 2023
07:26 12 AUG 2023
09:36 16 AUG 2023
12:24 20 AUG 2023
05:58 24 AUG 2023
17:54 14 OCT 2023
06:53 14 MAR 2025
GEMINI
CANCER
LEO
VIRGO
LIBRA
SCORPIO
SAGITTARIUS
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133	134	135	136	137	138	139		141		143	144	145
132	91	92	93	94	95	96	97	98	99	100	101	146
131	90	57	58	59	60	61	62	63	64	65	102	147
130	89	56	31	32	33	34	35	36	37	66	103	148
129	88	55	30	13	14	15	16	17	38	67	104	149
128	87	54	29	12	3	4	5	18	39	68	105	150
	86		28	11	2	1	6	19	40	69	106	151
126	85	52	27	10	9	8	7	20	41	70	107	152
125	84	51	26		24	23	22	21	42	71	108	153
124	83	50	49	48	47	46		44	43	72	109	154
123	82	81	80	79	78	77	76	75	74	73	110	155
122	121	120	119	118	117	116	115	114	113	112	111	156
	168	167	166	165	164	163	162	161	160	159	158	157

Cosmogram depicts the positions of the planetary bodies in relation to the numbers on the Square of Nine, as well as performs many useful functions and displays information on the planetary bodies.

Please note that the following chart provides a general overview and simplification of the Gann degrees associated with each zodiac sign.

Zodiac Sign	Gann Degrees
Aries	0 to 30
Taurus	30 to 60
Gemini	60 to 90
Cancer	90 to 120
Leo	120 to 150
Virgo	150 to 180
Libra	180 to 210
Scorpio	210 to 240
Sagittarius	240 to 270
Capricorn	270 to 300
Aquarius	300 to 330
Pisces	330 to 360

Remember, Gann's work is quite intricate and involves a deeper understanding of market analysis and geometry and can involve various techniques and calculations beyond just zodiac associations.

Here is another table that sums up Degree, Time, Direction, Zodiac Sign along with the Astronomical Events.

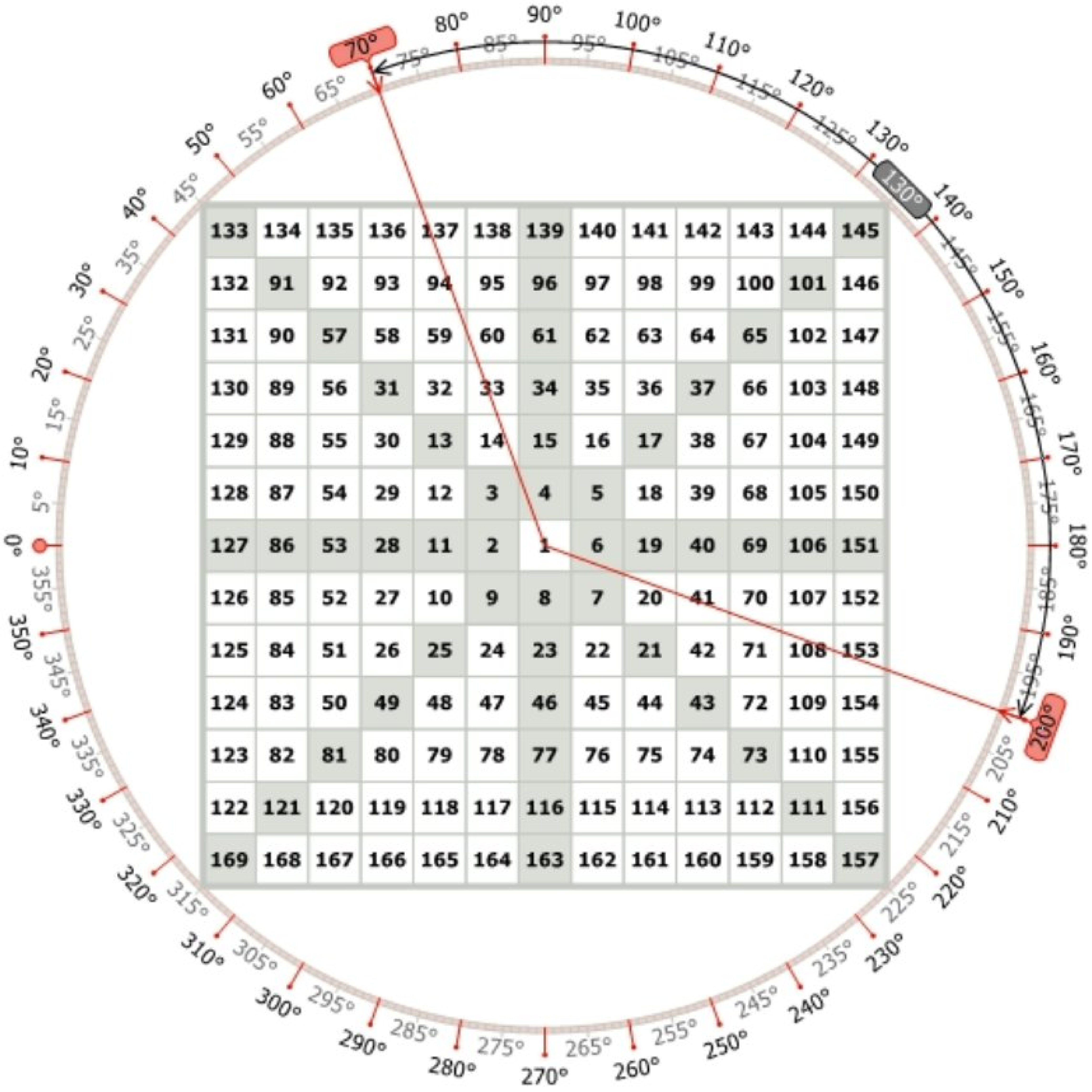
Deg	Date	Time	Events	Direction	Zodiac
0	Mar 21	6:00 a.m.	Spring Equinox	East	Aries

30	Apr 21	8:00 a.m.			Taurus
60	May 21	10:00 a.m.			Gemini
90	Jun 21	12:00 Noon	Summer Solstice	North	Cancer
120	Jul 23	2:00 p.m.			Leo
150	Aug 22	4:00 p.m.			Virgo
180	Sep 21	6:00 p.m.	Autumn Equinox	West	Libra
210	Oct 22	8:00 p.m.			Scorpio
240	Nov 21	10:00 p.m.			Sagittarius
270	Dec 21	12:00 Midnight	Winter Solstice	South	Capricorn
300	Jan 20	2:00 a.m.			Aquarius
330	Feb 19	4:00 a.m.			Pisces
360	Mar 21	6:00 a.m.	Spring Equinox	East	Aries

Gann Angles

When utilizing the Square of Nine, W.D. Gann would sketch lines extending from the center of the square outward to the encircling degrees.

These lines find application in various Square of Nine forecasting techniques. W.D. Gann classified these lines as angles, designating them by the degrees they intersected on the outer circle.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133	134	135	136	137	138	139	140	141	142	143	144	145
132	91	92	93	94	95	96	97	98	99	100	101	146
131	90	57	58	59	60	61	62	63	64	65	102	147
130	89	56	31	32	33	34	35	36	37	66	103	148
129	88	55	30	13	14	15	16	17	38	67	104	149
128	87	54	29	12	3	4	5	18	39	68	105	150
127	86	53	28	11	2	1	6	19	40	69	106	151
126	85	52	27	10	9	8	7	20	41	70	107	152
125	84	51	26	25	24	23	22	21	42	71	108	153
124	83	50	49	48	47	46	45	44	43	72	109	154
123	82	81	80	79	78	77	76	75	74	73	110	155
122	121	120	119	118	117	116	115	114	113	112	111	156
169	168	167	166	165	164	163	162	161	160	159	158	157

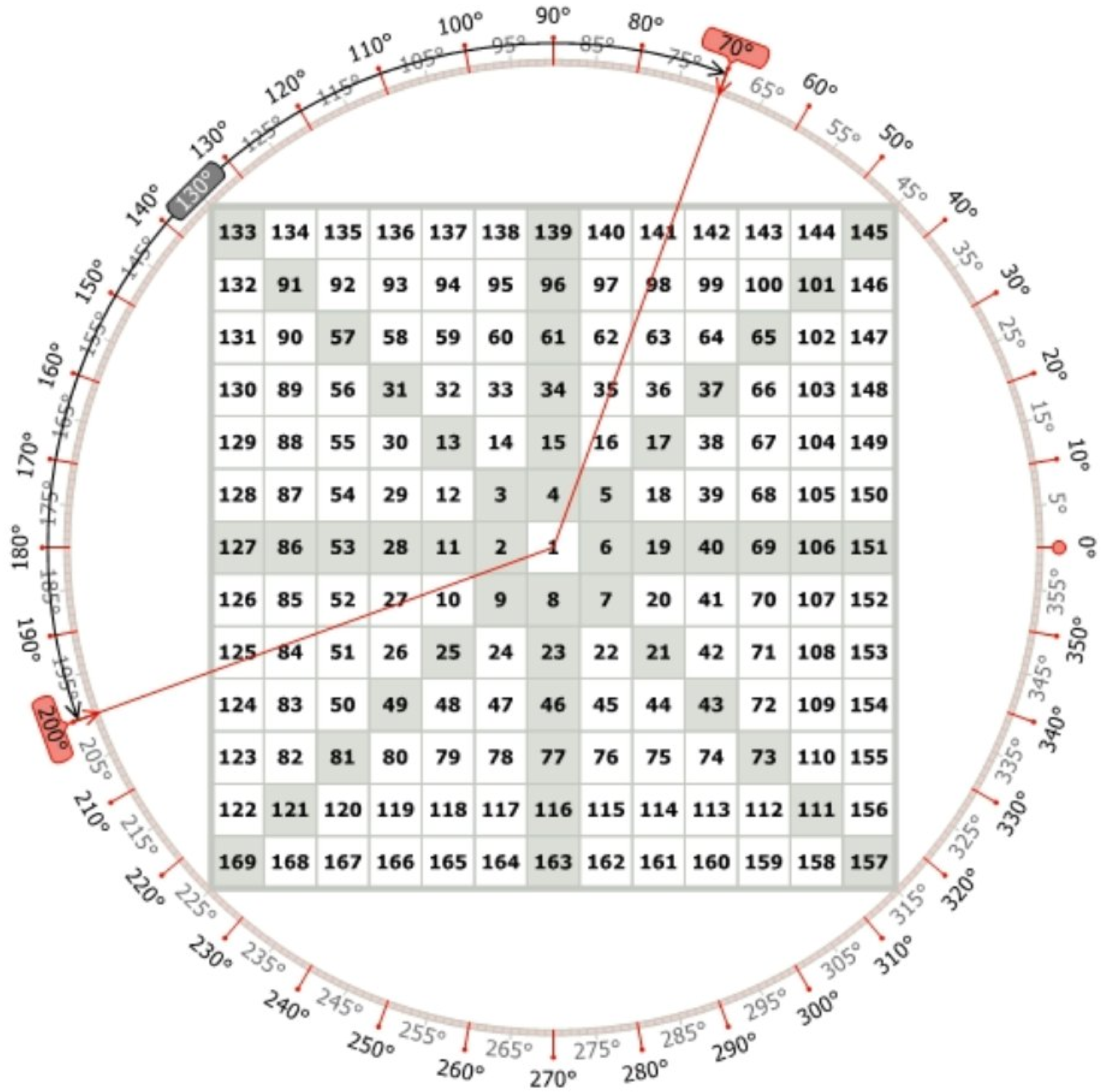
In this Image, the Layout is Clockwise and the Protractor is also Clockwise.

For instance, in the above image, a line originates from the center of the square and extends to the 70° mark on the outer circle.

This particular line is denoted as the 70° angle.

Similarly, another line is drawn from the center to the 200° mark, establishing the 200° angle.

It's important to note that while this may not adhere to the conventional geometric definition of an angle, it aligns with W.D. Gann's interpretation, and we employ his terminology in this context.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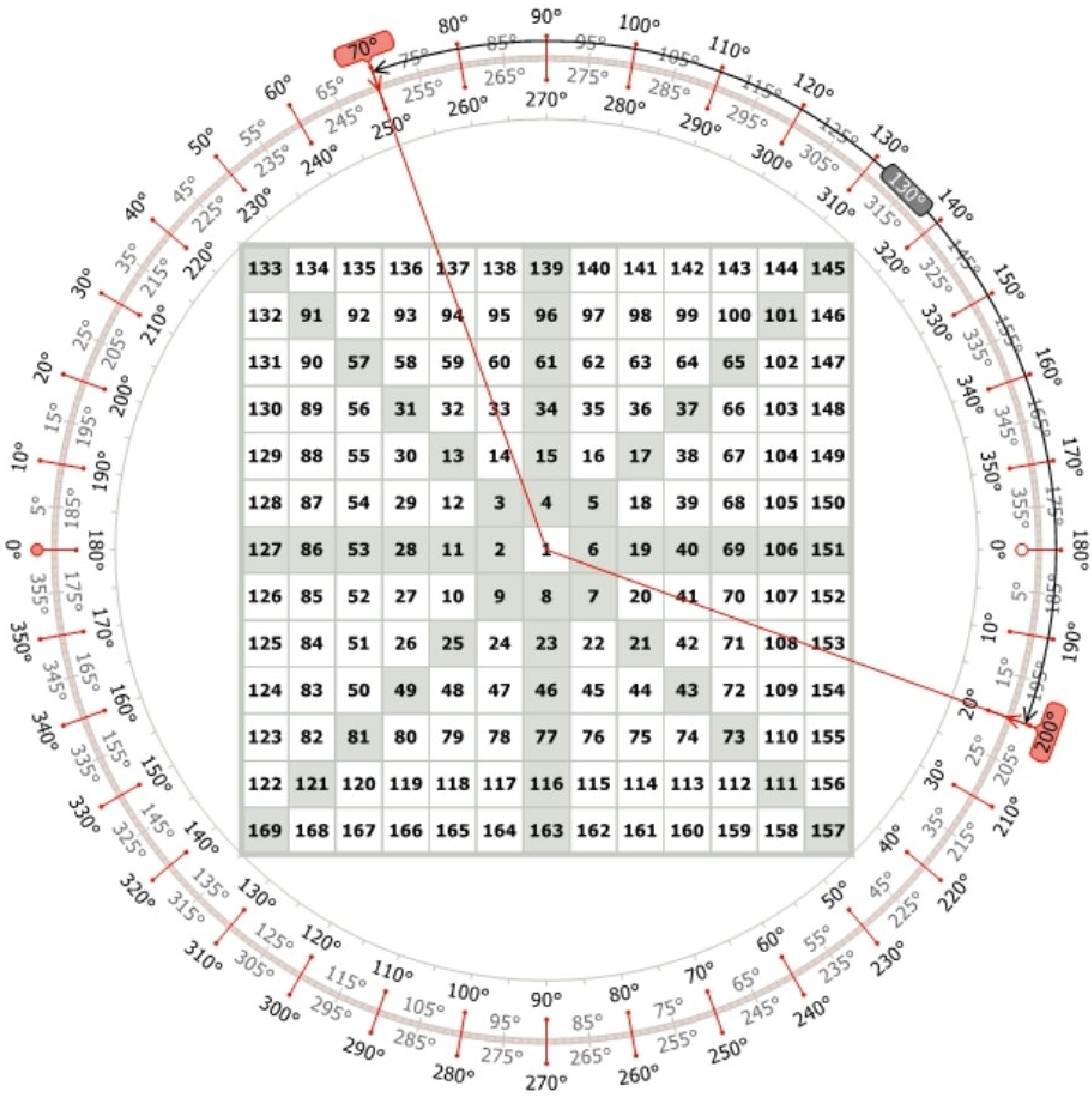
133	134	135	136	137	138	139	140	141	142	143	144	145
132	91	92	93	94	95	96	97	98	99	100	101	146
131	90	57	58	59	60	61	62	63	64	65	102	147
130	89	56	31	32	33	34	35	36	37	66	103	148
129	88	55	30	13	14	15	16	17	38	67	104	149
128	87	54	29	12	3	4	5	18	39	68	105	150
127	86	53	28	11	2	1	6	19	40	69	106	151
126	85	52	27	10	9	8	7	20	41	70	107	152
125	84	51	26	25	24	23	22	21	42	71	108	153
124	83	50	49	48	47	46	45	44	43	72	109	154
123	82	81	80	79	78	77	76	75	74	73	110	155
122	121	120	119	118	117	116	115	114	113	112	111	156
169	168	167	166	165	164	163	162	161	160	159	158	157

In this image, the protractor is Anticlockwise. As discussed earlier, The protractor and the Layout’s orientation do not matter in the outcomes.

W.D. Gann occasionally refrained from encircling the exterior of the Square of Nine, as this practice would result in a notably enlarged final square.



133	134	135	136	137	138	139	140	141	142	143	144	145
132	91	92	93	94	95	96	97	98	99	100	101	146
131	90	57	58	59	60	61	62	63	64	65	102	147
130	89	56	31	32	33	34	35	36	37	66	103	148
129	88	55	30	13	14	15	16	17	38	67	104	149
128	87	54	29	12	3	4	5	18	39	68	105	150
127	86	53	28	11	2	1	6	19	40	69	106	151
126	85	52	27	10	9	8	7	20	41	70	107	152
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124	83	50	49	48	47	46	45	44	43	72	109	154
123	82	81	80	79	78	77	76	75	74	73	110	155
122	121	120	119	118	117	116	115	114	113	112	111	156
169	168	167	166	165	164	163	162	161	160	159	158	157

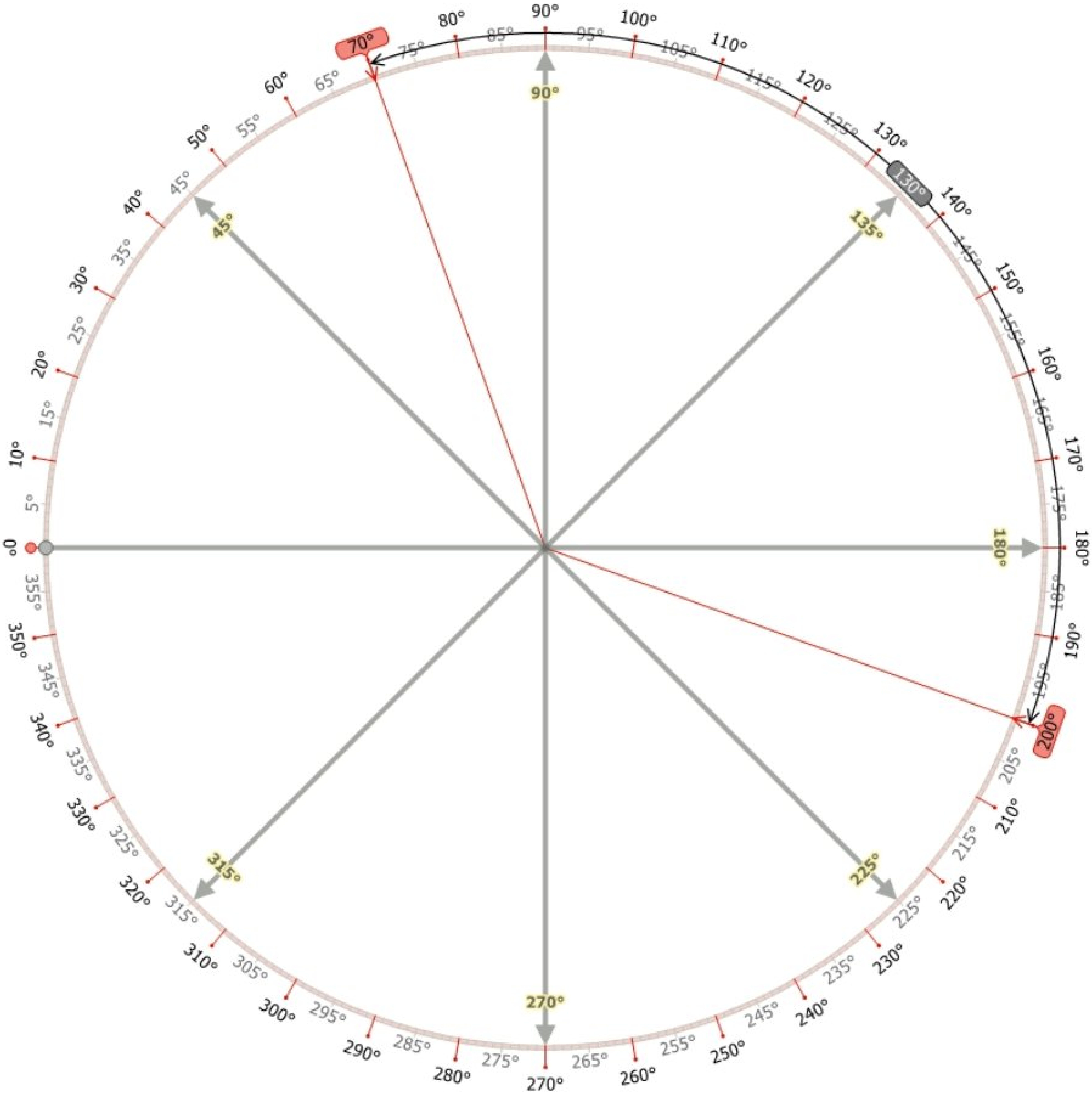
But, with current advancements, it just takes a matter of click to summon another secondary scale to Protractor like shown in the above image.

Angle Overlays

There are multiple ways we use additional tools with the Square of Nine. These tools are called overlays, and there are two famous overlays:

- Angle overlays.
- Shape overlays.

In the previous sections, We have use overlay of protractor, Chronometer and Cosmogram already.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305°
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315°
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325°
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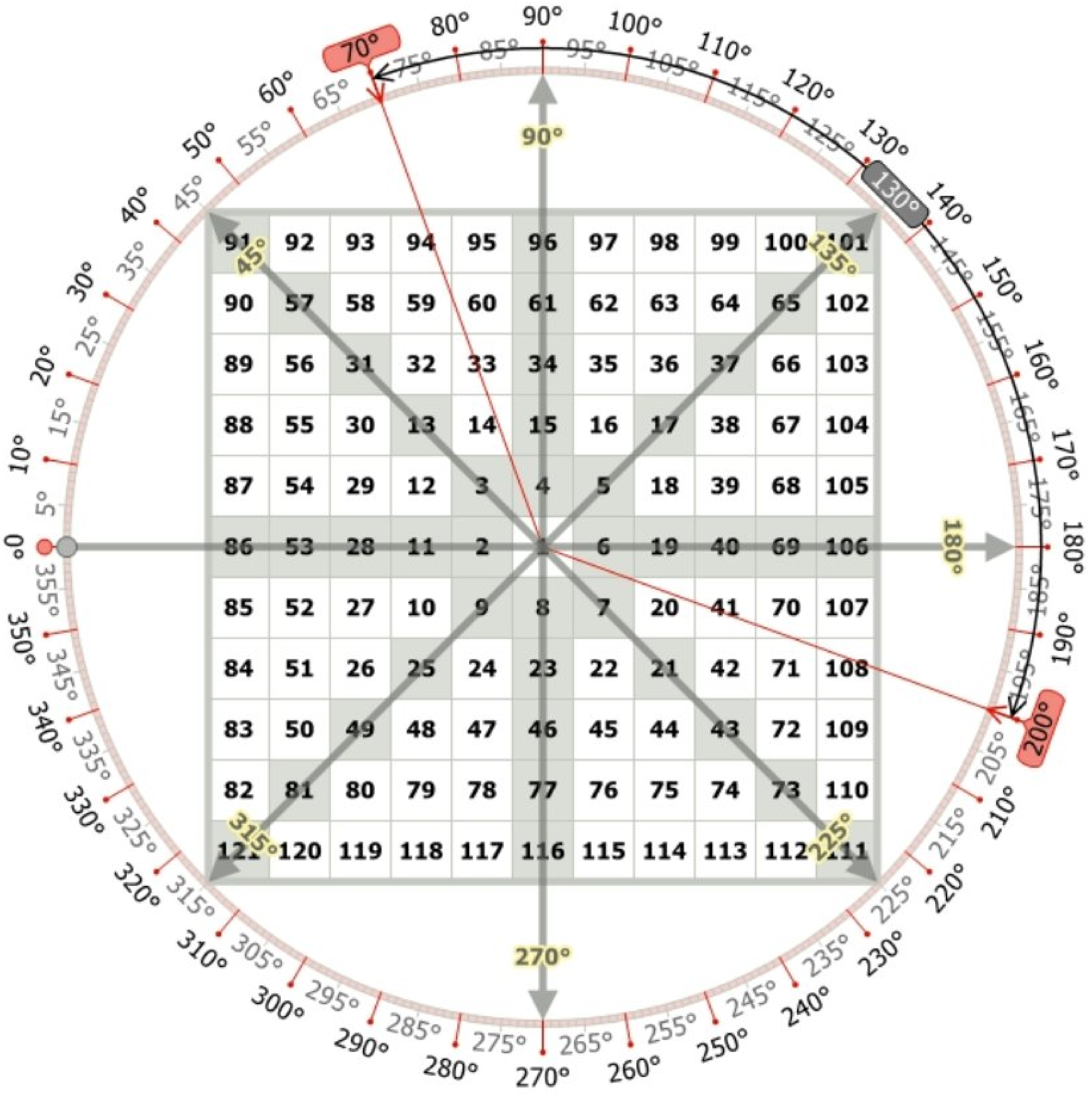
345°
350°
355°
45°
90°
135°
180°
225°
270°
315°

Think of it like this: imagine we have a clear sheet that we can draw lines on. In the above picture, we've drawn lines to show angles that are important. These angles are like pathways on a map. They're fixed angles on the Square of Nine, which is like our map.

Now, we can take that clear sheet with the lines and place it on top of the Square of Nine. We can turn it around and move it. The lines on the clear sheet line up with certain numbers on the Square of Nine that are 45 degrees apart. It's like matching up landmarks on a map.



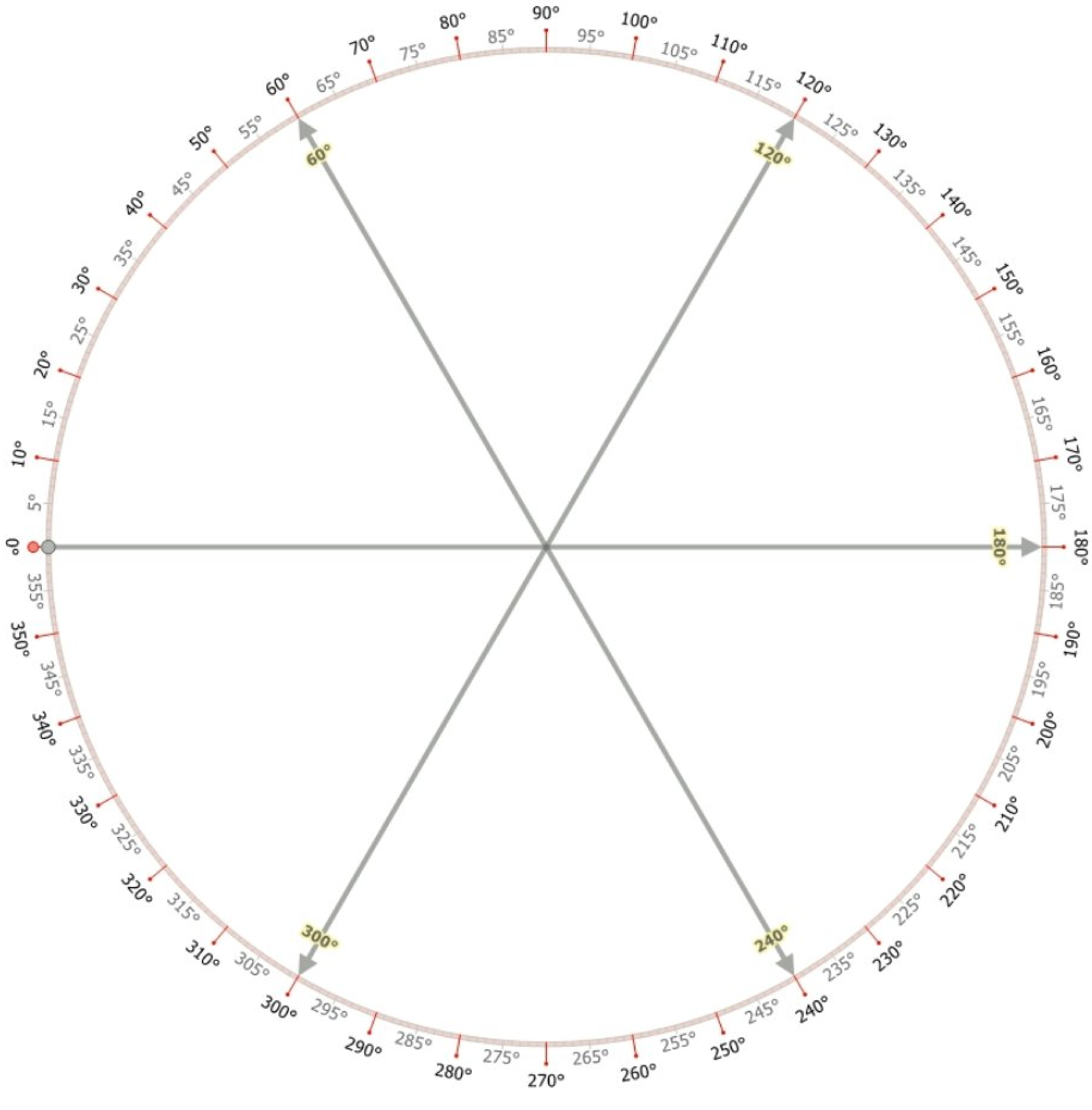
91	92	93	94	95	96	97	98	99	100	101
90	57	58	59	60	61	62	63	64	65	102
89	56	31	32	33	34	35	36	37	66	103
88	55	30	13	14	15	16	17	38	67	104
87	54	29	12	3	4	5	18	39	68	105
86	53	28	11	2		6	19	40	69	106
85	52	27	10	9	8	7	20	41	70	107
84	51	26	25	24	23	22	21	42	71	108
83	50	49	48	47	46	45	44	43	72	109
82	81	80	79	78	77	76	75	74	73	110
121	120	119	118	117	116	115	114	113	112	111

When we rotate the clear sheet, we can see those special numbers on the Square of Nine from different starting points. This clear sheet becomes a moveable tool that helps us understand where these important numbers are. On this clear sheet, there's a bolder line at 0 degrees.

It's like a big road on our map. Each line on this sheet is like a path, and we give them names based on how many degrees they're from that big road.

For instance, the line directly across from the big road is the 180-degree line. There are also lines at 45 degrees away from the big road, called the 45-degree angle and the 315-degree angle. And there are lines at 90 degrees away, called the 90-degree angle and the 270-degree angle.

Apart from the overlay of 45 degree which was used by W.D Gann, here is another image that shows overlay with an angle every 60 degree.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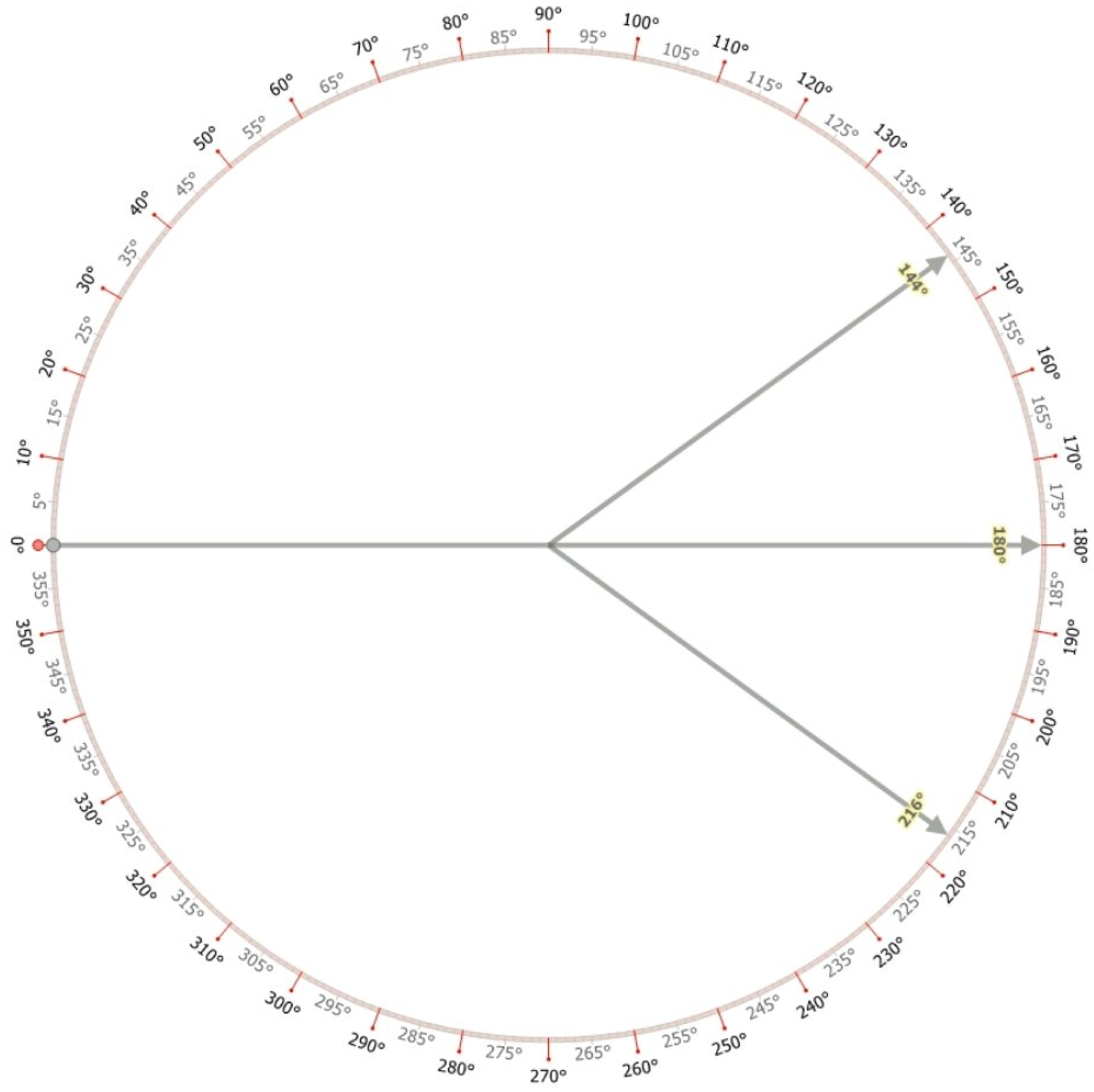
So, by using this special clear sheet and turning it around on the Square of Nine, we can find these important numbers using these angles. It's like using a special compass on a treasure map to discover hidden spots.

The overlay shown in image below is a unique tool that was employed by W.D. Gann. This particular overlay features the 180-degree angle, along with two additional angles situated at a distance of 144 degrees from the 0-degree angle. These two angles are marked as 144 and 216.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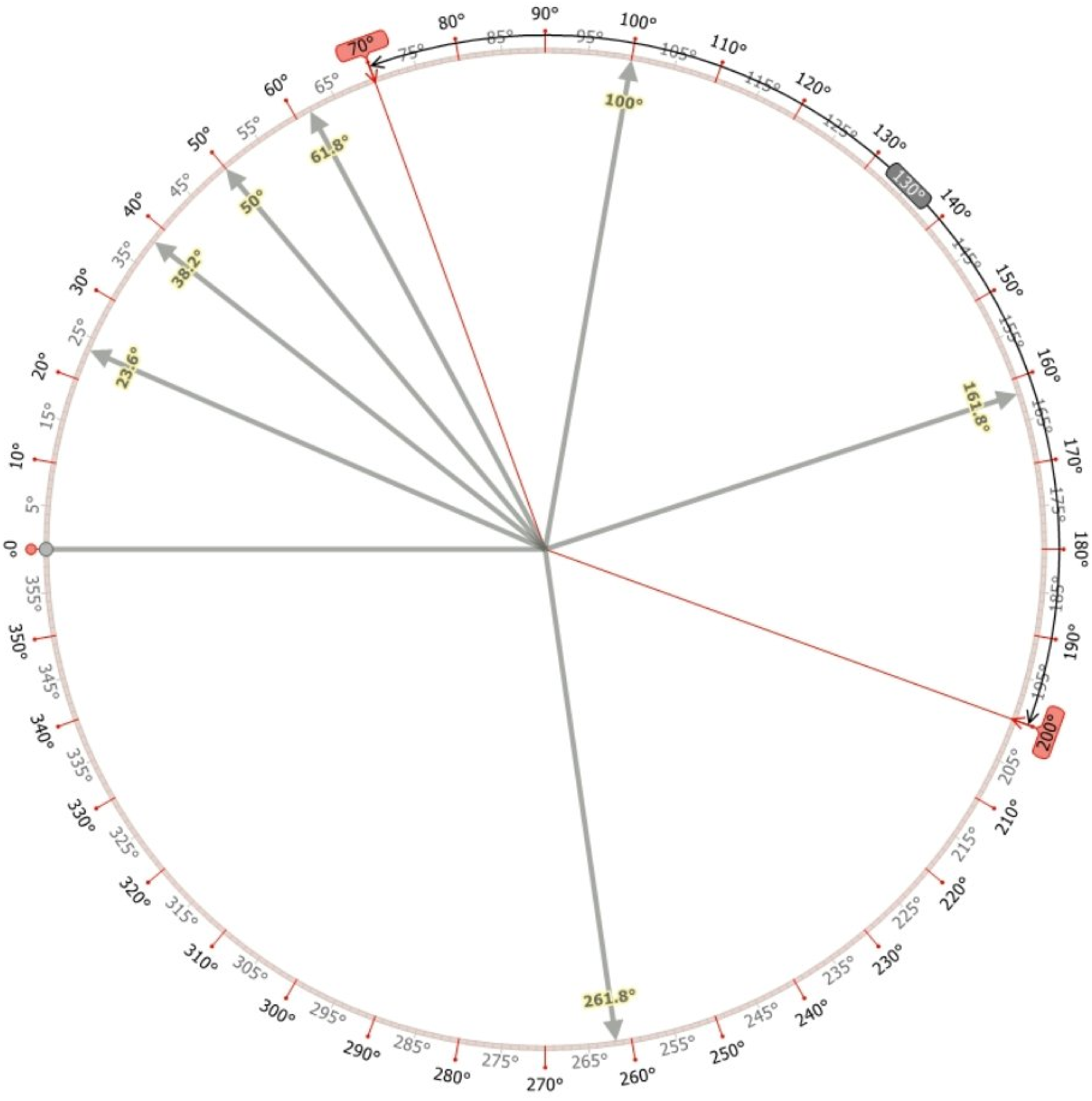
Fibonacci and Fibonacci Extension Angle Overlay

Fibonacci retracement levels establish connections between two chosen points that a trader considers significant, often a peak and a trough.

- These percentage levels indicate zones where the price might pause or potentially change direction.
- The frequently employed ratios encompass 23.6%, 38.2%, 50%, 61.8%, and 78.6%.

- However, it's crucial not to solely depend on these levels. It's risky to assume that the price will invariably reverse upon reaching a particular Fibonacci level.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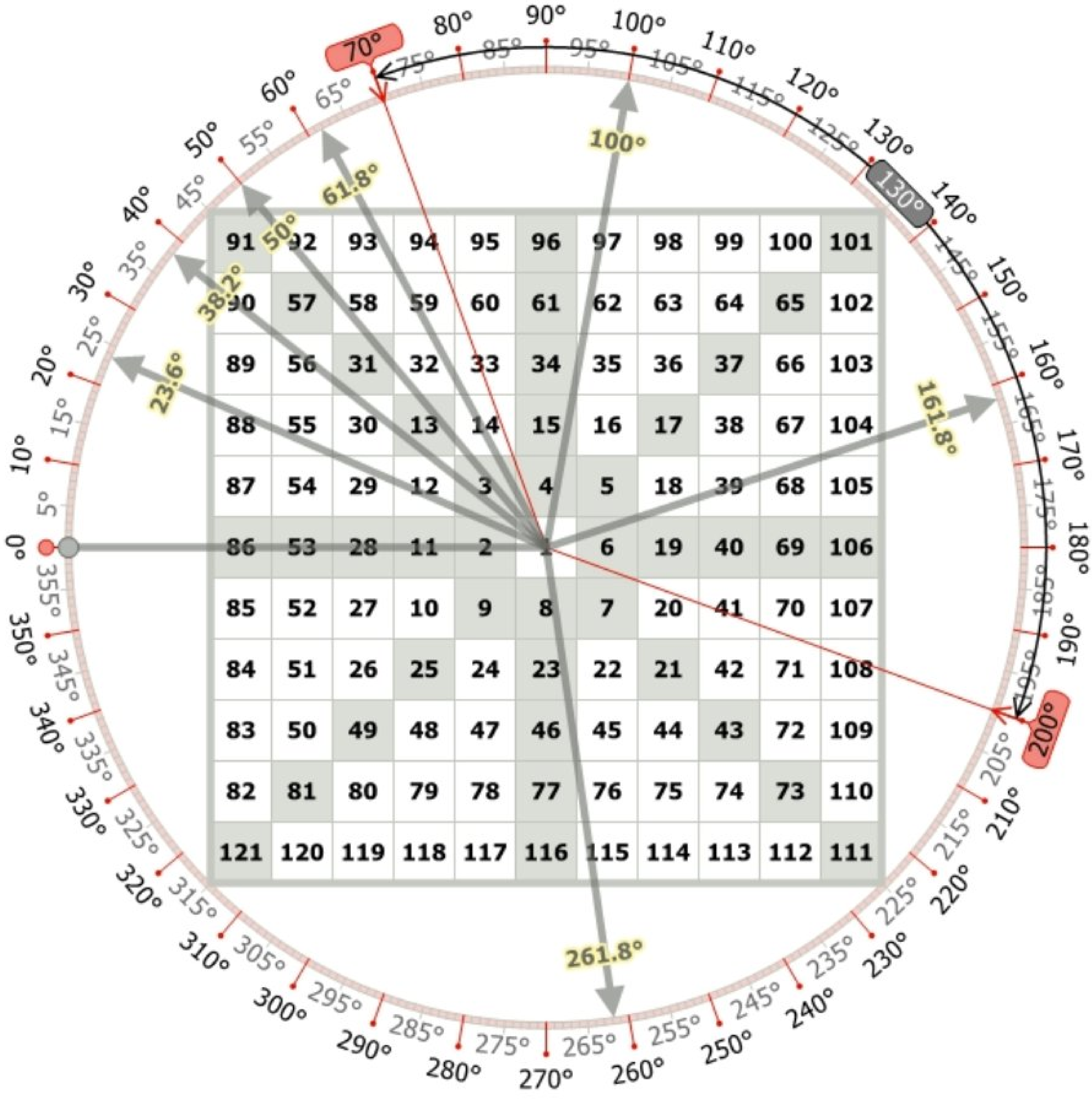
In the above image, the angles with Fibonacci levels are plotted as an Angle Overlay.

Interestingly, Fibonacci numbers and sequences were employed by Indian mathematicians many centuries before the time of Leonardo Fibonacci.

Fibonacci extensions serve as a technique that traders can employ to set potential profit goals or gauge the potential distance a price might cover once a temporary setback has concluded. These extension levels can also suggest zones where price reversals might occur.

- Fibonacci extensions essentially indicate the potential scope of the next price movement that follows a temporary pullback.
- Using well-known Fibonacci ratios, the typical Fibonacci extension levels encompass 61.8%, 100%, 161.8%, 200%, and 261.8%.
- While extension levels offer insights into potential significant points, it's important not to solely depend on them as a sole strategy.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89	56	31	32	33	34	35	36	37	66	103
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87	54	29	12	3	4	5	18	39	68	105
86	53	28	11	2	1	6	19	40	69	106
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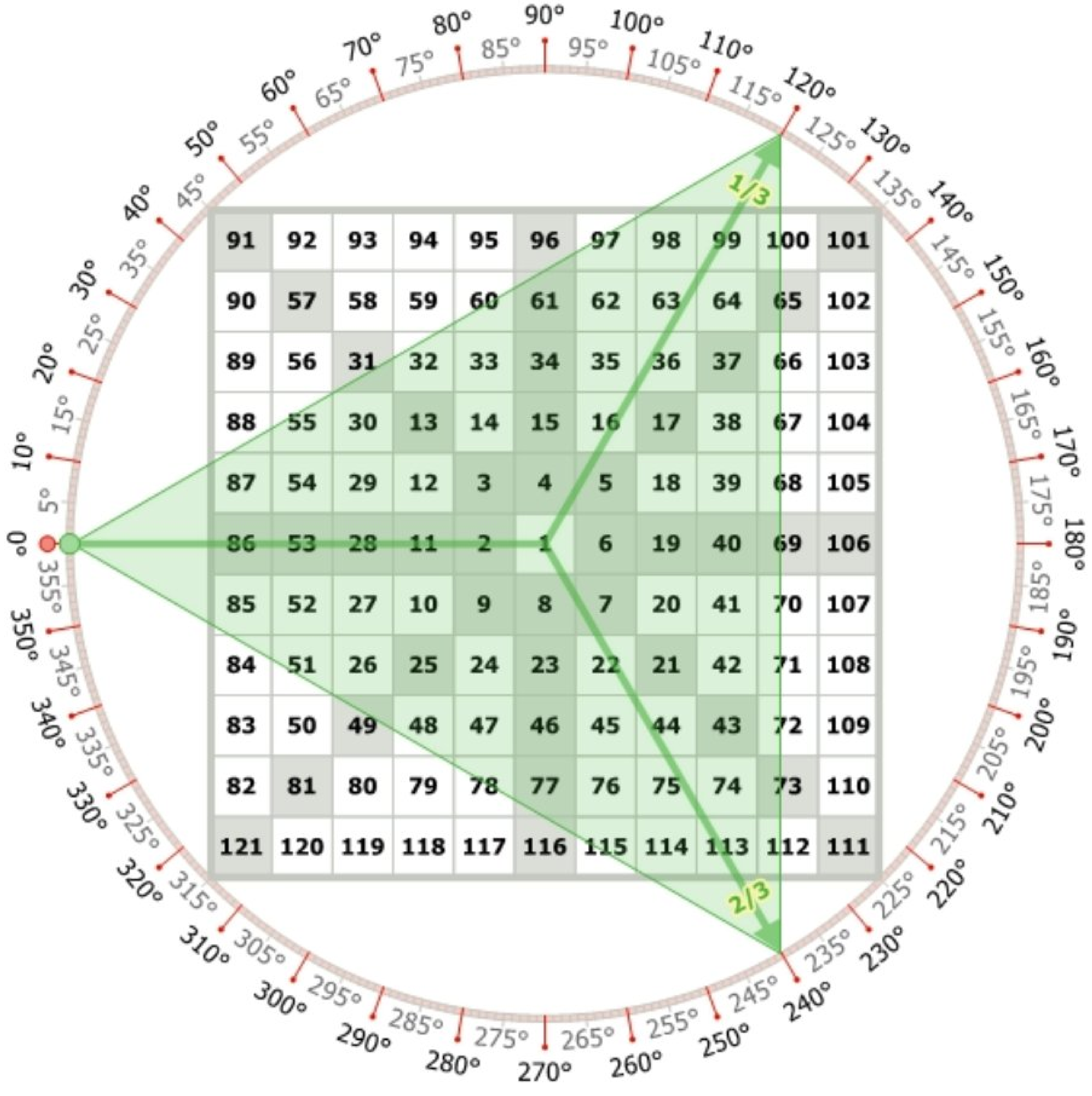
83	50	49	48	47	46	45	44	43	72	109
82	81	80	79	78	77	76	75	74	73	110
121	120	119	118	117	116	115	114	113	112	111

As depicted in the image, the application of Fibonacci Numbers as an angle overlay has gained widespread popularity in recent times.

Shape Overlays

Geometric forms serve as the foundation for W.D. Gann's secondary type of overlays, comprising two shapes: t

- The square.
- The triangle.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88	55	30	13	14	15	16	17	38	67	104
87	54	29	12	3	4	5	18	39	68	105
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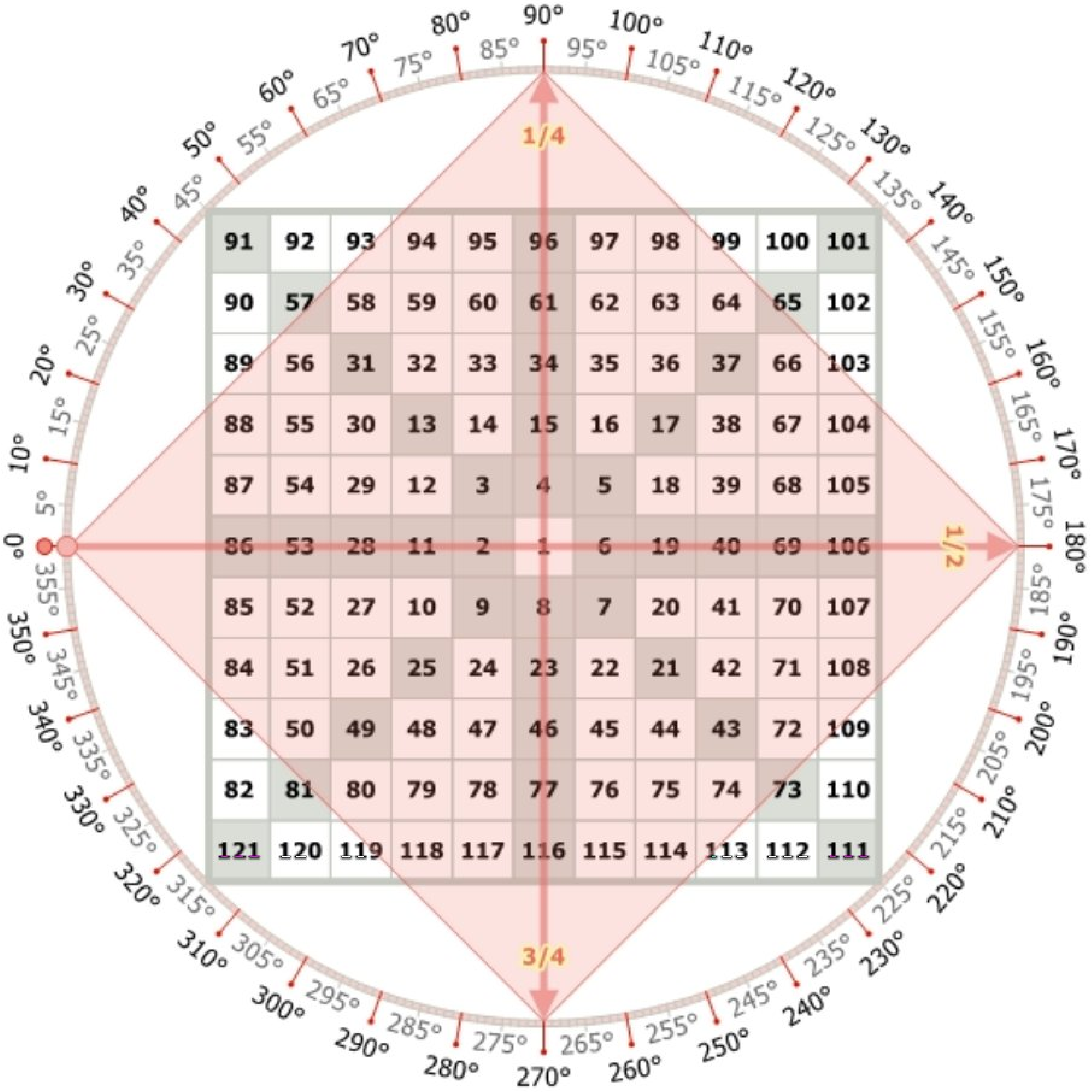
83	50	49	48	47	46	45	44	43	72	109
82	81	80	79	78	77	76	75	74	73	110
121	120	119	118	117	116	115	114	113	112	111

In the above figure, on the Square of Nine, you can observe a triangle overlay. This overlay includes two distinct sets of lines.

- The initial set of lines outlines the shape. These lines are finer and more delicate in nature.

- The second set of lines and is composed of bold, dark lines resides within the shape and extends from the shape's corner to the center of the Square of Nine.

Similarly, here is an illustration of the Gann Square of Nine featuring a square shape overlay. Once more, we encounter the two sets of lines, following the same pattern as previously explained.



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82	81	80	79	78	77	76	75	74	73	110
121	120	119	118	117	116	115	114	113	112	111

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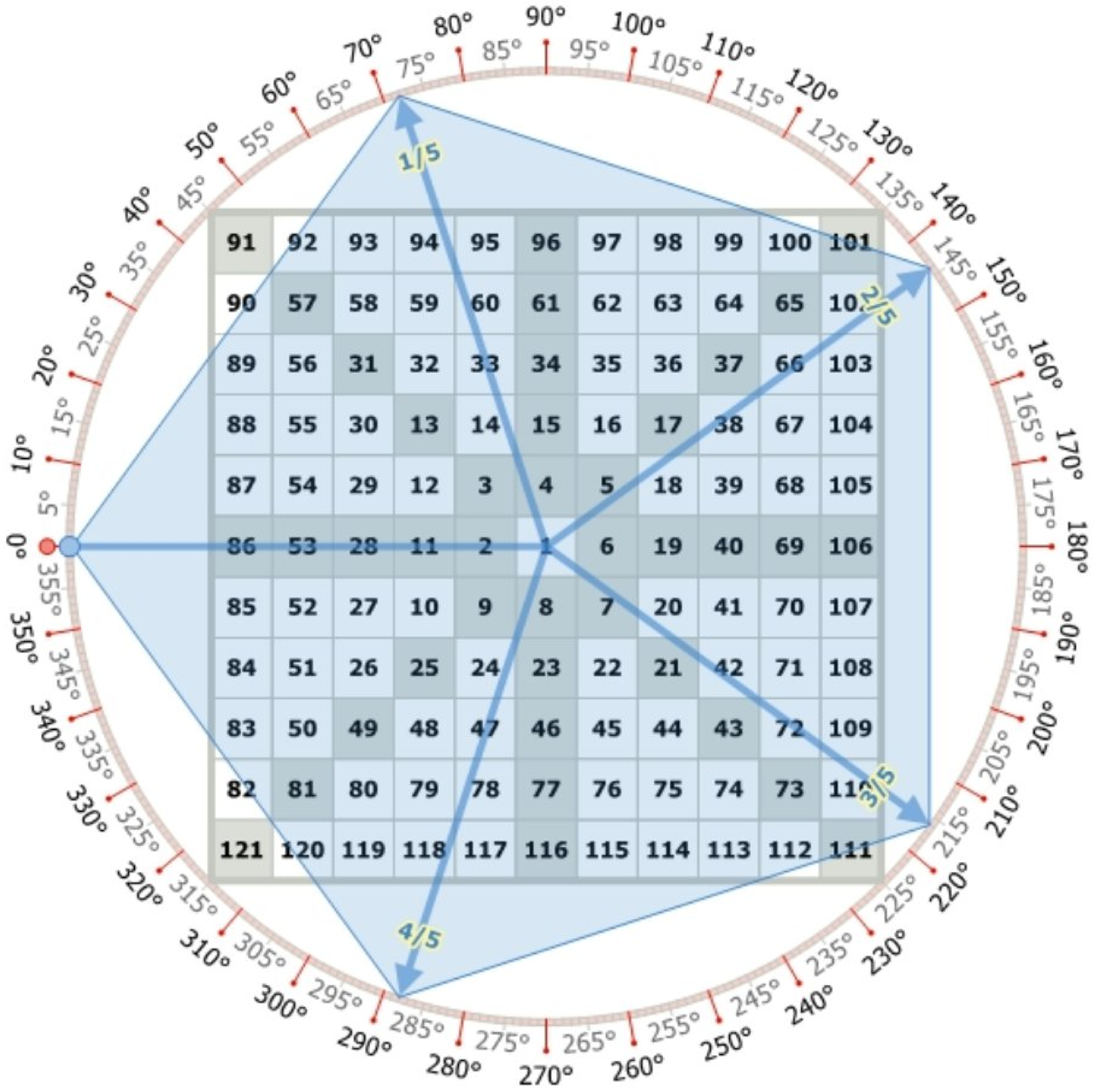
In modern times, it is very easier to create other overlays with the help of Gannzilla Software. Here are images of various other overlays with different types of shapes.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91	92	93	94	95	96	97	98	99	100	101
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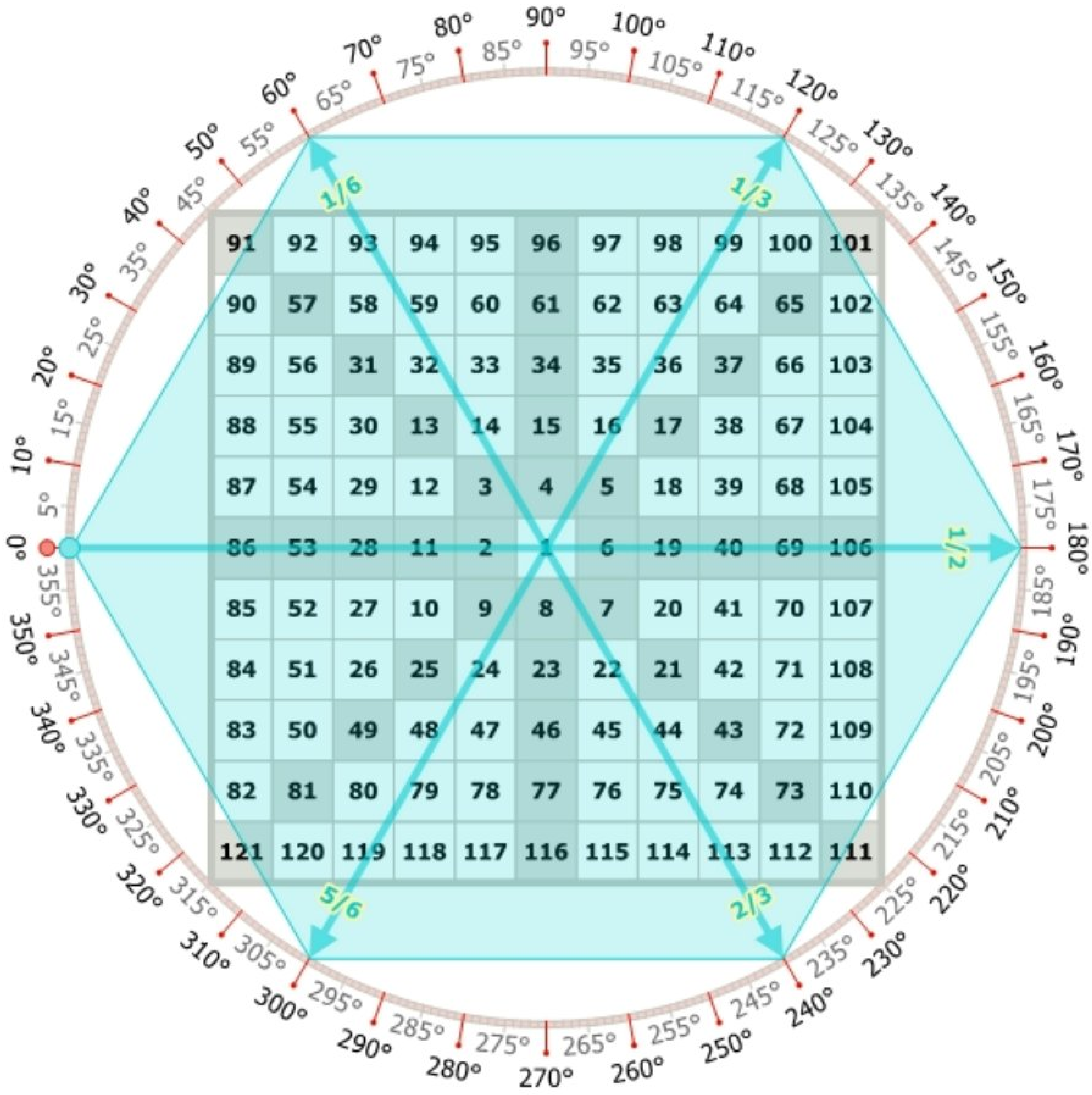
83	50	49	48	47	46	45	44	43	72	109
82	81	80	79	78	77	76	75	74	73	110
121	120	119	118	117	116	115	114	113	112	111

Gann Square of 9 with overlay of Pentagon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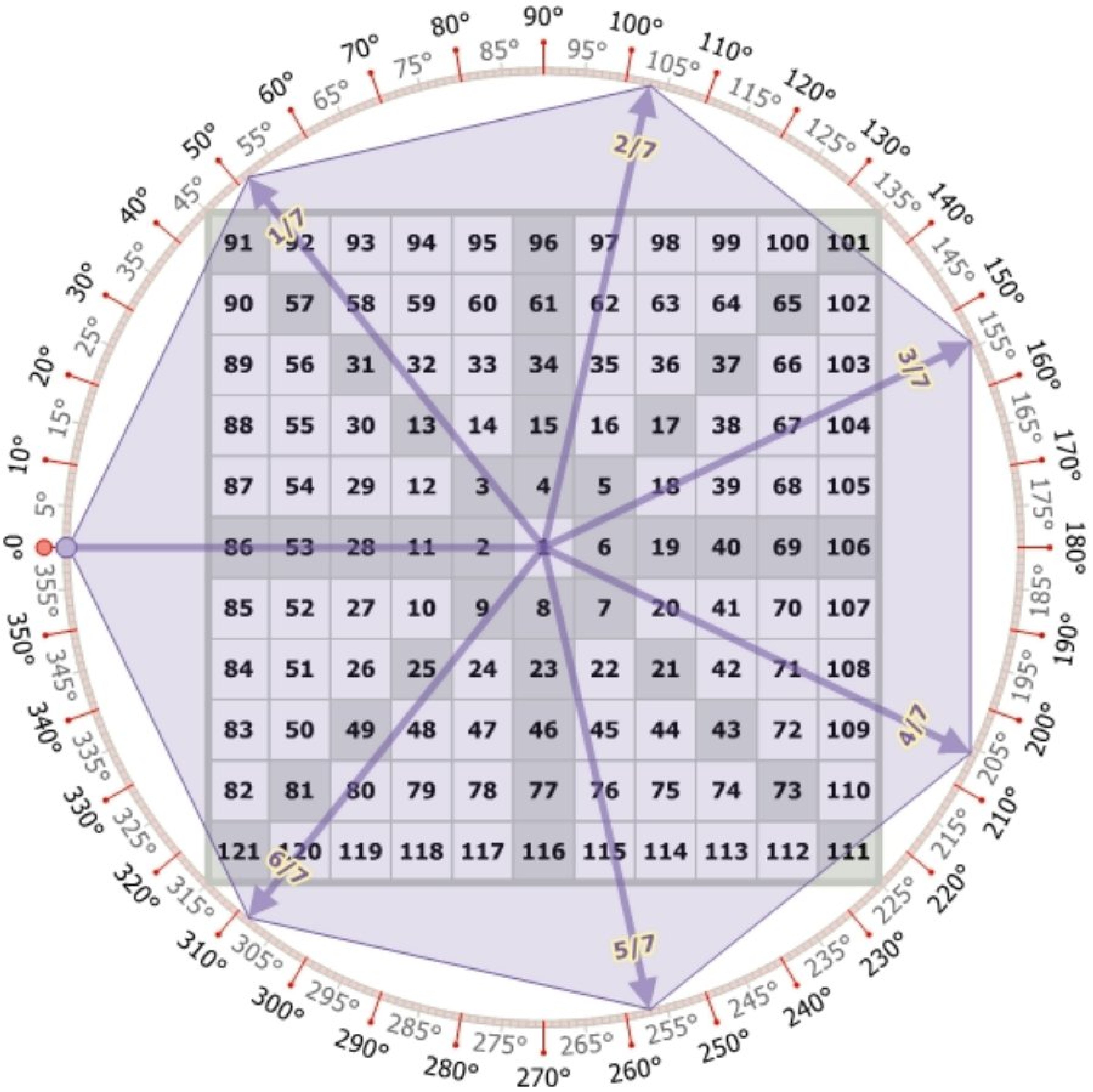
Gann Square of 9 with overlay of Hexagon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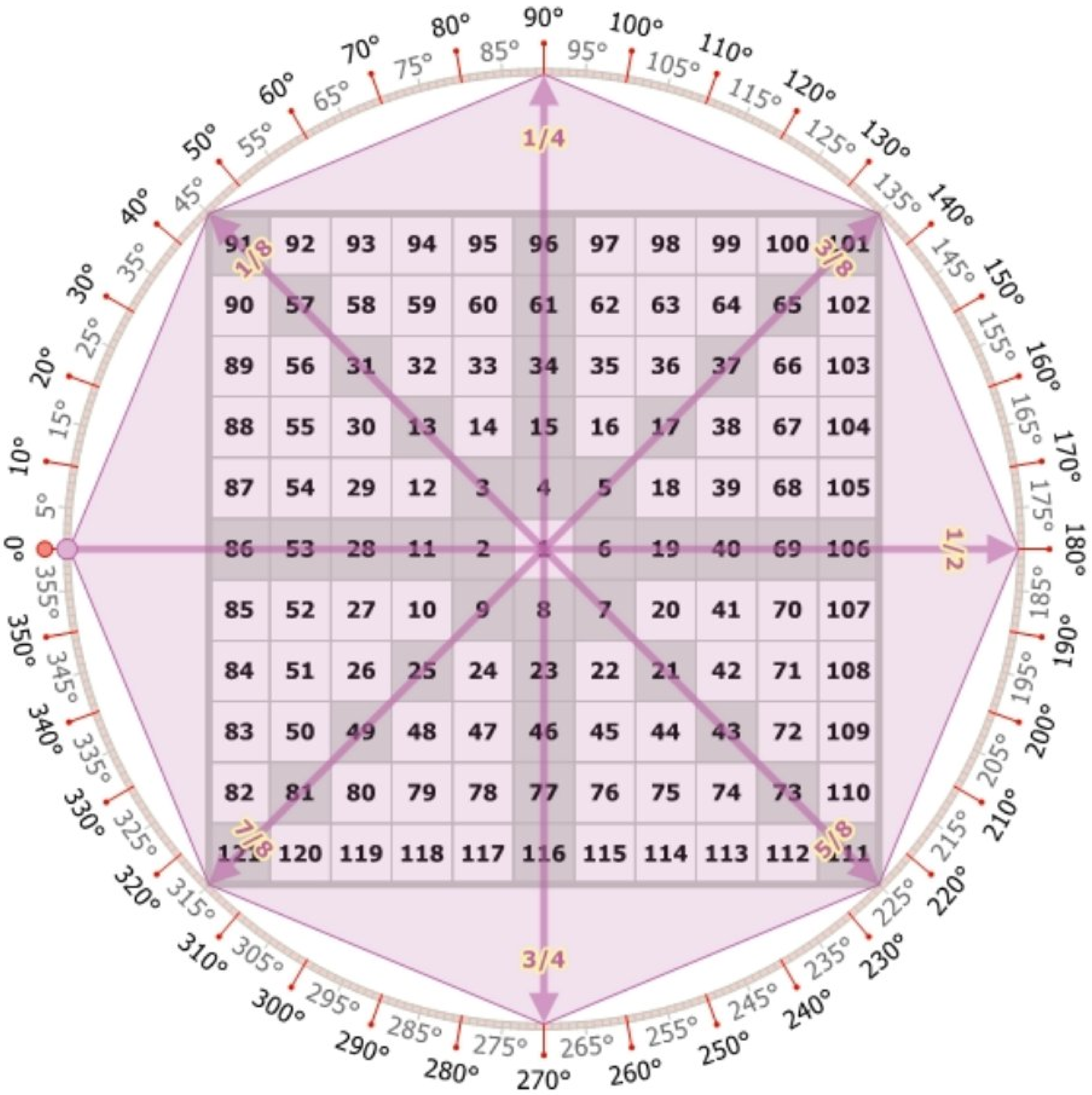
Gann Square of 9 with overlay of Septagon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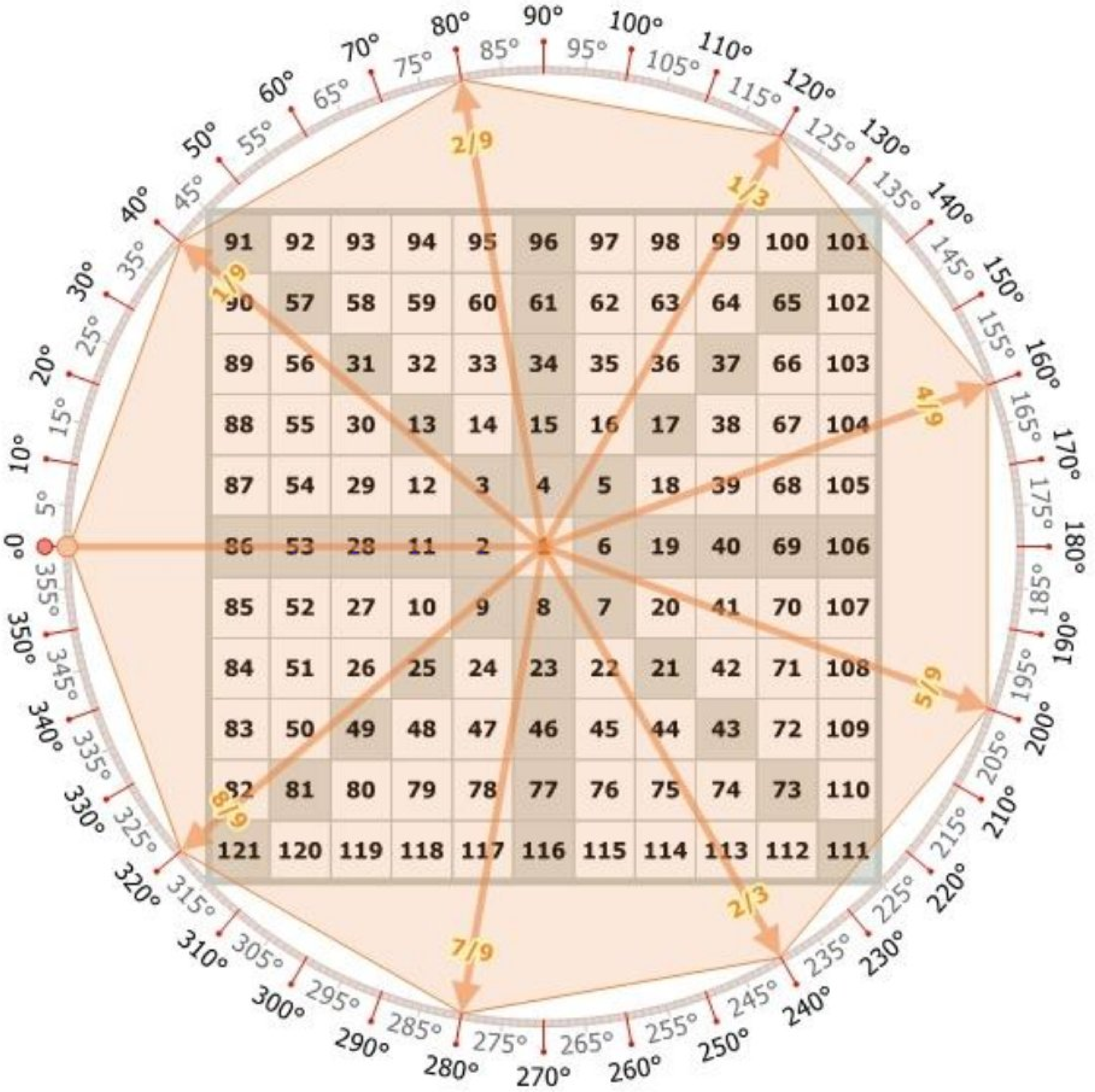
Gann Square of 9 with overlay of Octagon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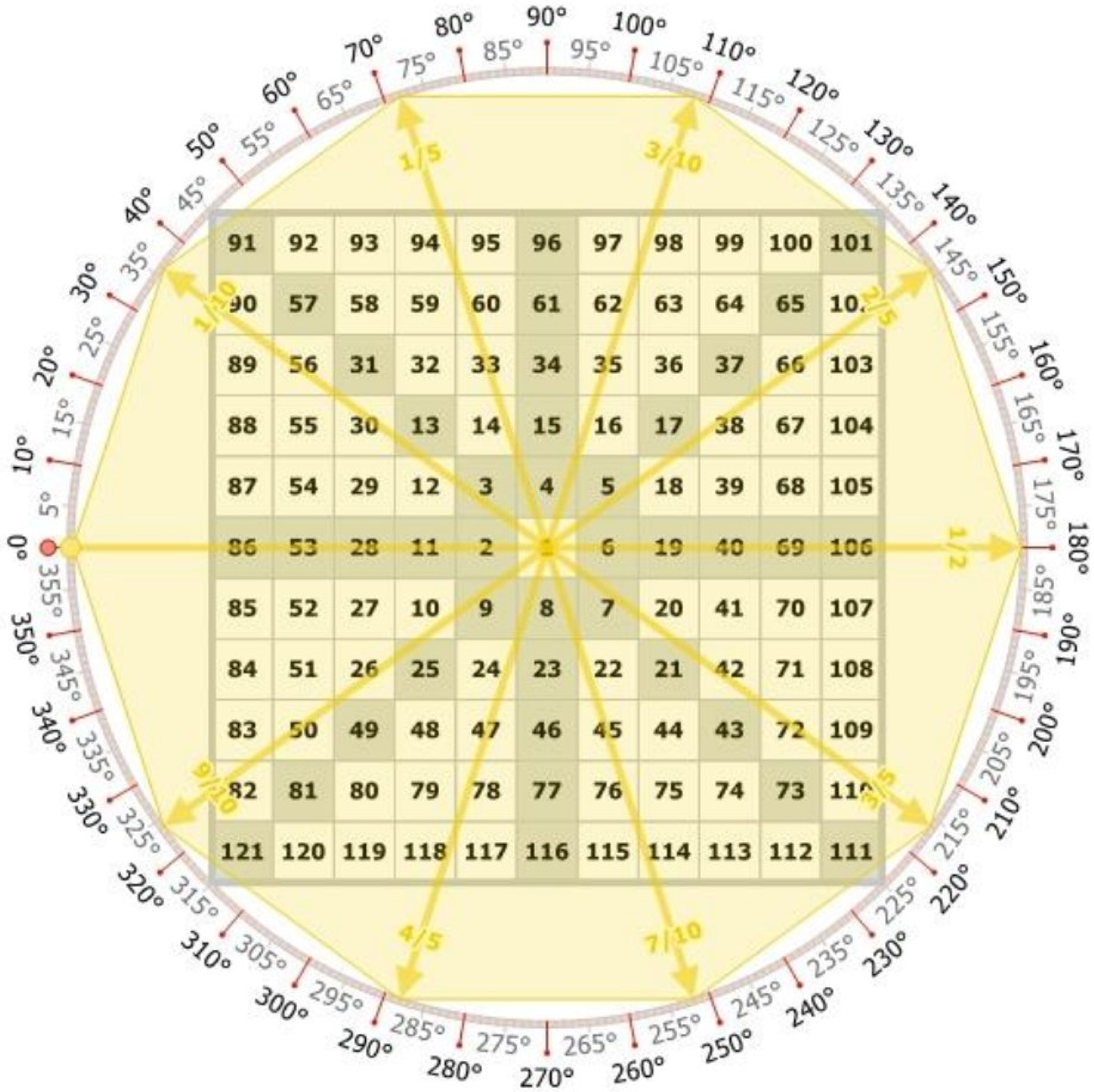
121	120	119	118	117	116	115	114	113	112	111

Gann Square of 9 with overlay of Nonagon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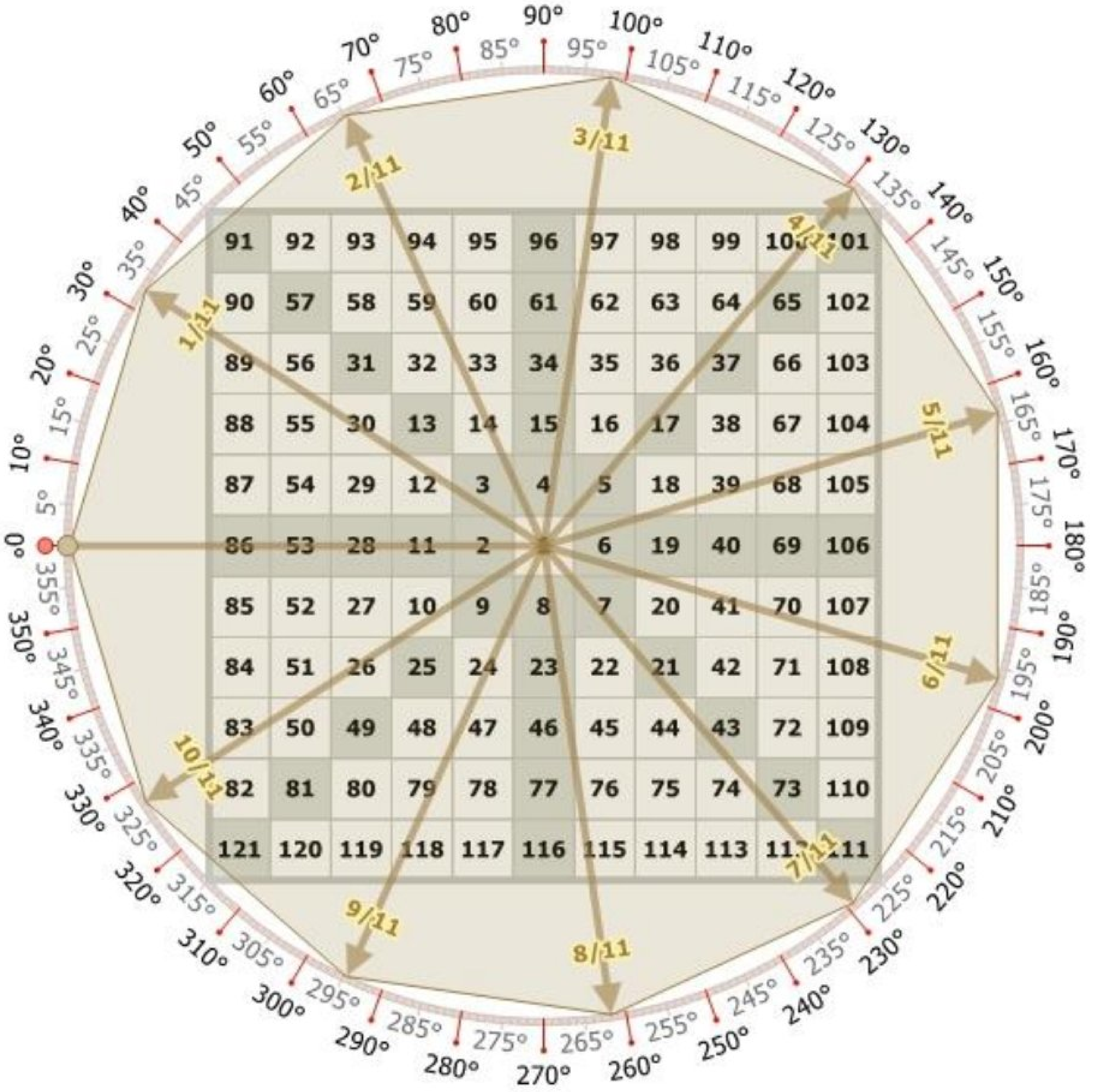
90	57	58	59	60	61	62	63	64	65	10.
89	56	31	32	33	34	35	36	37	66	103
88	55	30	13	14	15	16	17	38	67	104
87	54	29	12	3	4	5	18	39	68	105
86	53	28	11	2	1	6	19	40	69	106
85	52	27	10	9	8	7	20	41	70	107
84	51	26	25	24	23	22	21	42	71	108
83	50	49	48	47	46	45	44	43	72	109
82	81	80	79	78	77	76	75	74	73	11
121	120	119	118	117	116	115	114	113	112	111

Gann Square of 9 with overlay of Decagon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91	92	93	94	95	96	97	98	99	100	101
90	57	58	59	60	61	62	63	64	65	102
89	56	31	32	33	34	35	36	37	66	103
88	55	30	13	14	15	16	17	38	67	104
87	54	29	12	3	4	5	18	39	68	105
86	53	28	11	2		6	19	40	69	106
85	52	27	10	9	8	7	20	41	70	107
84	51	26	25	24	23	22	21	42	71	108
83	50	49	48	47	46	45	44	43	72	109
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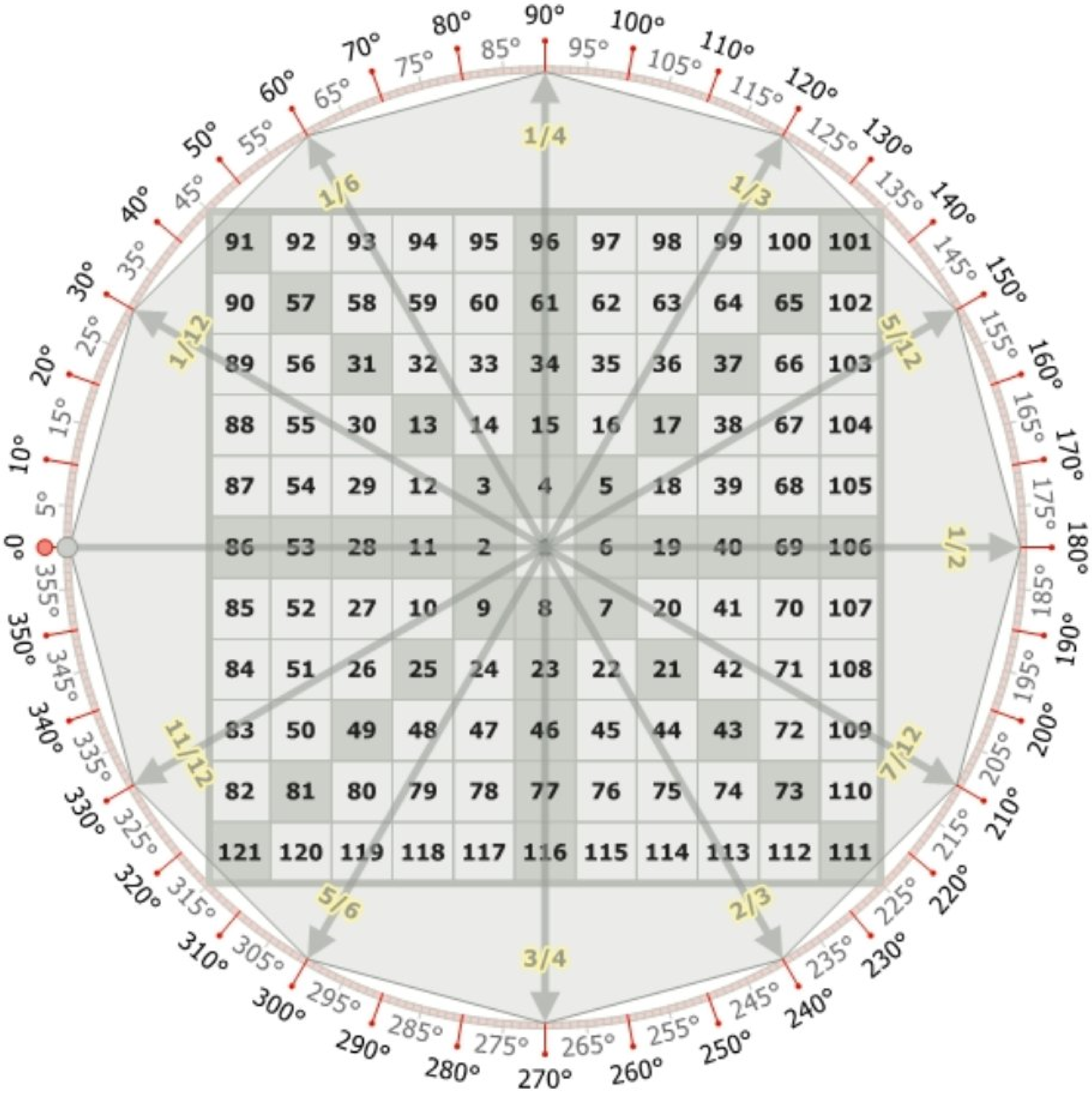
Gann Square of 9 with overlay of Hendecagon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91	92	93	94	95	96	97	98	99	100	101
90	57	58	59	60	61	62	63	64	65	102
89	56	31	32	33	34	35	36	37	66	103
88	55	30	13	14	15	16	17	38	67	104
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84	51	26	25	24	23	22	21	42	71	108
83	50	49	48	47	46	45	44	43	72	109
82	81	80	79	78	77	76	75	74	73	110
121	120	119	118	117	116	115	114	113	112	111

Gann Square of 9 with overlay of Dodecagon

In conclusion, the integration of various overlay techniques alongside diverse chart types, shapes, and additional metrics has significantly expanded the scope of this field.

This fusion of methods has enriched the analytical toolkit, enabling a more comprehensive and nuanced approach to understanding and interpreting data. As the realm of overlays continues to evolve, it promises to provide even deeper insights and a more intricate understanding of the underlying patterns and trends within complex datasets.

Gann Angles Basics

According to Gann, every angle and pattern on a price chart has unique characteristics that can be used to predict price action. His charts use the same time and price interval, making them highly precise and reliable. One of the key principles of Gann Angles is that a price/run of 1×1 will always equal a 45-degree angle. Gann believed that price and time are at their most powerful when they move in harmony at a 45-degree angle relative to each other.

To draw Gann Angles at different angles, you need to identify a significant top or bottom on the chart. If prices are above the trendline, it is a bullish market, while a bear market is indicated if they are below it. Gann believed that 1×1 trend lines provide major support and resistance in an uptrend, and that when the trendline is broken, it signals a major reversal of the trend.

1x1 Angle

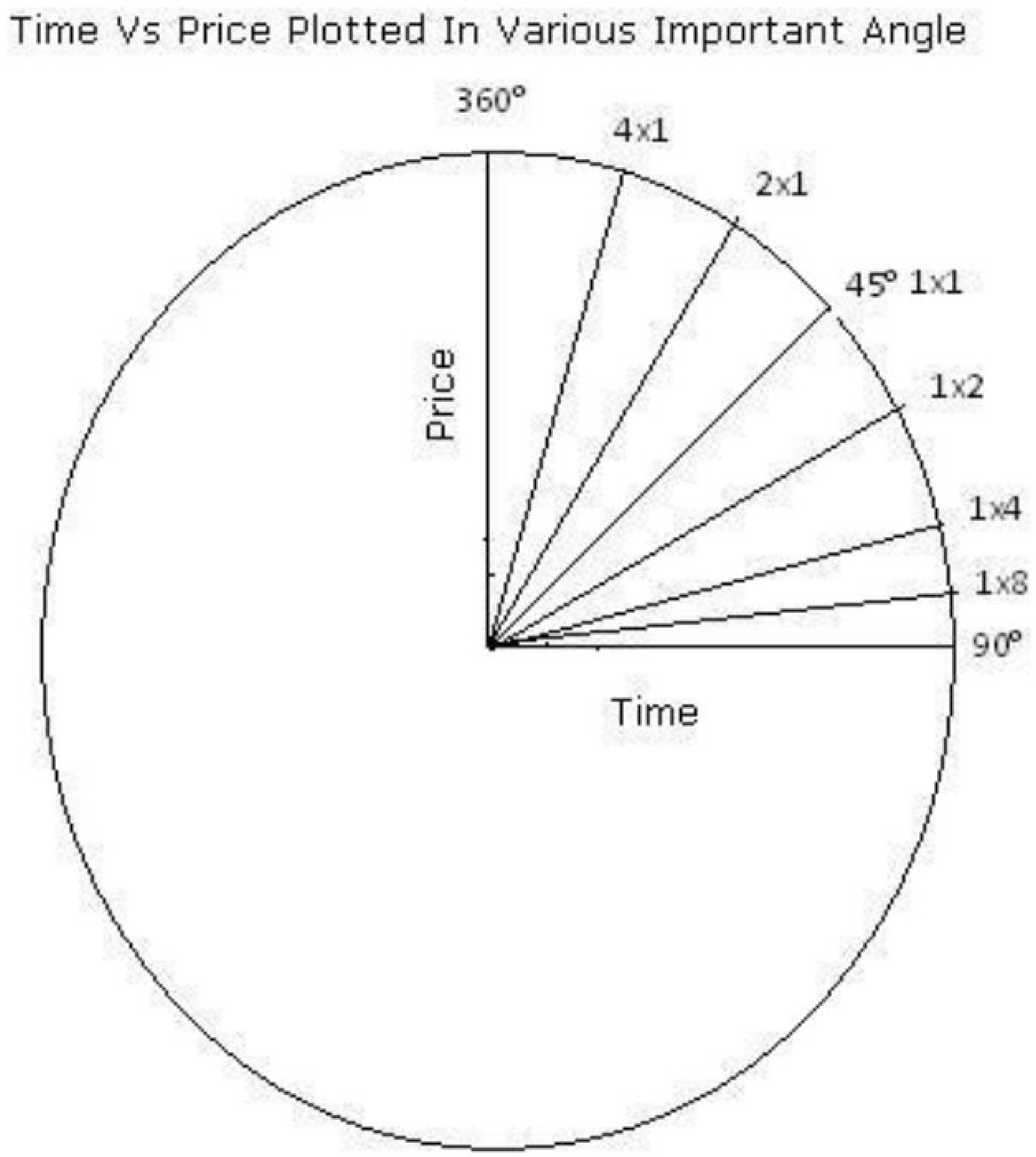
The perfect harmony of time and price lies at 45 degrees

Gann believed that the ideal balance between time and price exists when prices rise or fall at a 45-degree angle relative to the time axis.

This is also called a 1 x 1 angle (i.e. prices rise one price unit for each time unit). Gann identified nine angles in total, with the most important being the 1×1 angle (read as one by one).

The other angles include –

- 1 x 8 - 82.5 degrees
- 1 x 4 - 75 degrees
- 1 x 3 - 71.25 degrees
- 1 x 2 - 63.75 degrees
- 1 x 1 - 45 degrees
- 2 x 1 - 26.25 degrees
- 3 x 1 - 18.75 degrees
- 4 x 1 - 15 degrees
- 8 x 1 - 7.5 degrees



Gann noted that all angles provide support and resistance levels based on the trend, with the 1×1 angle providing the strongest support. When the price begins to fall below the 1×1 angled trend line, it is a major signal of a trend reversal, indicating that traders should consider taking profits or reversing their positions. Understanding Gann Angles can be a powerful tool for traders looking to anticipate market movements and make informed trading decisions.

Gann Angles work like Support and Resistance

Gann believed that this is the most important angle and it determines trend strength i.e., it signifies a bull market if prices are above the angle or a bear market if below.

Each of the angles provides support and resistance depending on the trend.

- During an up-trend, the 1 x 1 angle tends to provide major support.
- A major reversal is signaled when prices fall below the 1 x 1 angled trendline.

Crosses & Gann Angles

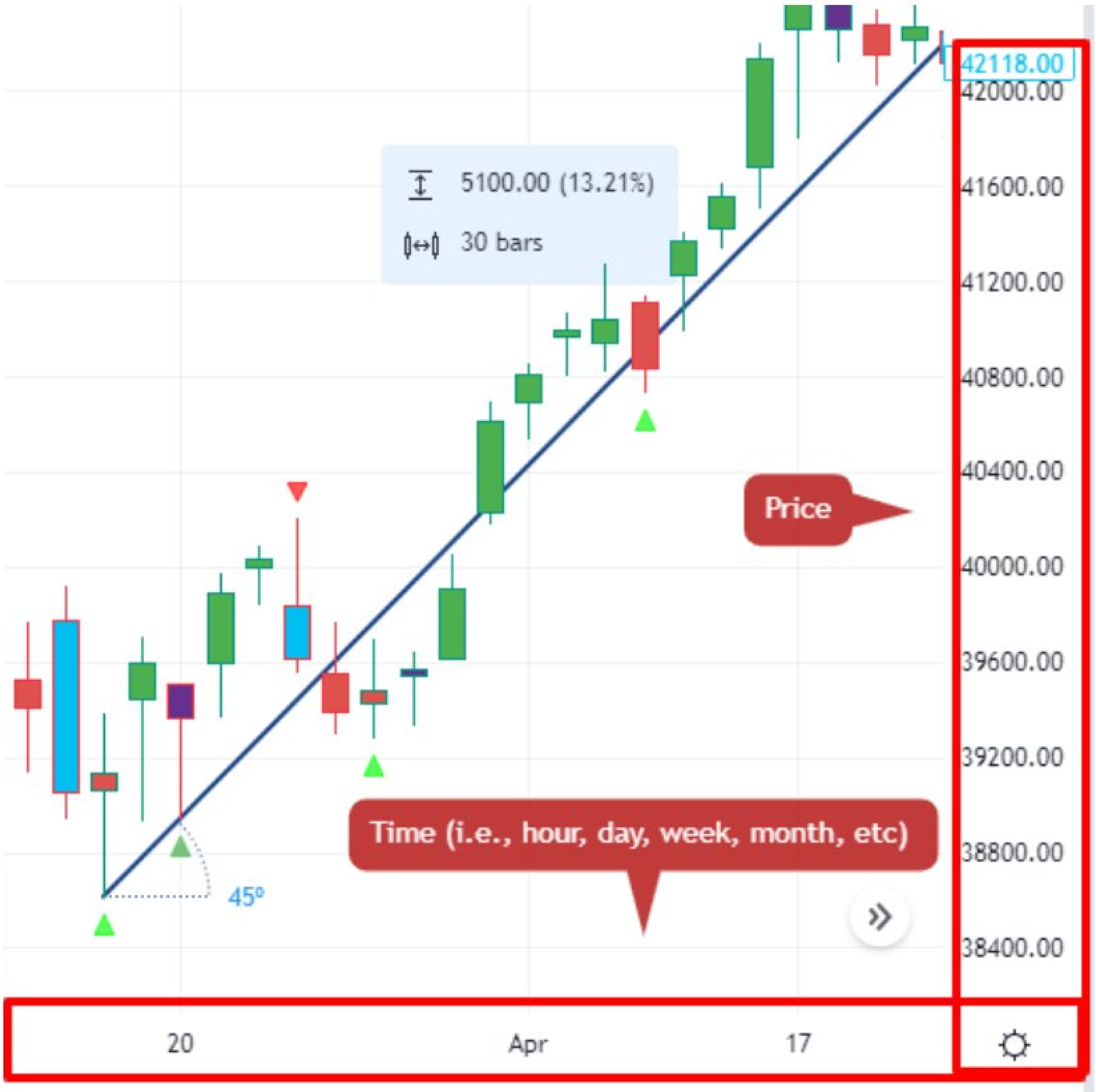
In other words,

As one angle is penetrated, expect prices to move and consolidate and march ahead towards the next angle.

With each 45-degree rotation in the Gann Square of 9, You encounter either a cardinal cross or an ordinal cross. The numbers in Cardinal Cross and Ordinal Cross (or, call them Cardinal Numbers and Ordinal Numbers) are important pivot points.

With Each 45-degree rotation in the Gann Square of 9, You will encounter Pivot Points.

x-Axis, y-Axis



Before We discuss on the scale, it is important to revisit an important concept! What does the x axis and y axis signify in our traditional charting platform?

- x-axis marks the "Time (i.e., hour, day, week, month, etc.)"
- y-axis marks the "Price (or, any other variable)"

Rise/Run

- Rise/Run is a quick verbal term.
- In an 1x1 angle, the rise and run is equal.
- It corresponds to a 45-degree angle.
- The 1 x 1 in 1 x 1 angle means Price has moved by 1 unit and Time has moved by 1 unit. It represents a price movement of 1 price unit per day (trading day).

So, a 45-degree angle represents a 1:1 slope, where the price changes equally with time.

Gann Scaling

Equal Spacing

However, for these angle measurements to accurately represent the actual slope of the trend, it's important to ensure that the chart is properly calibrated or scaled.

According to Gann's methodology, calibrating the chart involves ensuring that the intervals on both the x-axis and y-axis maintain uniform spacing.

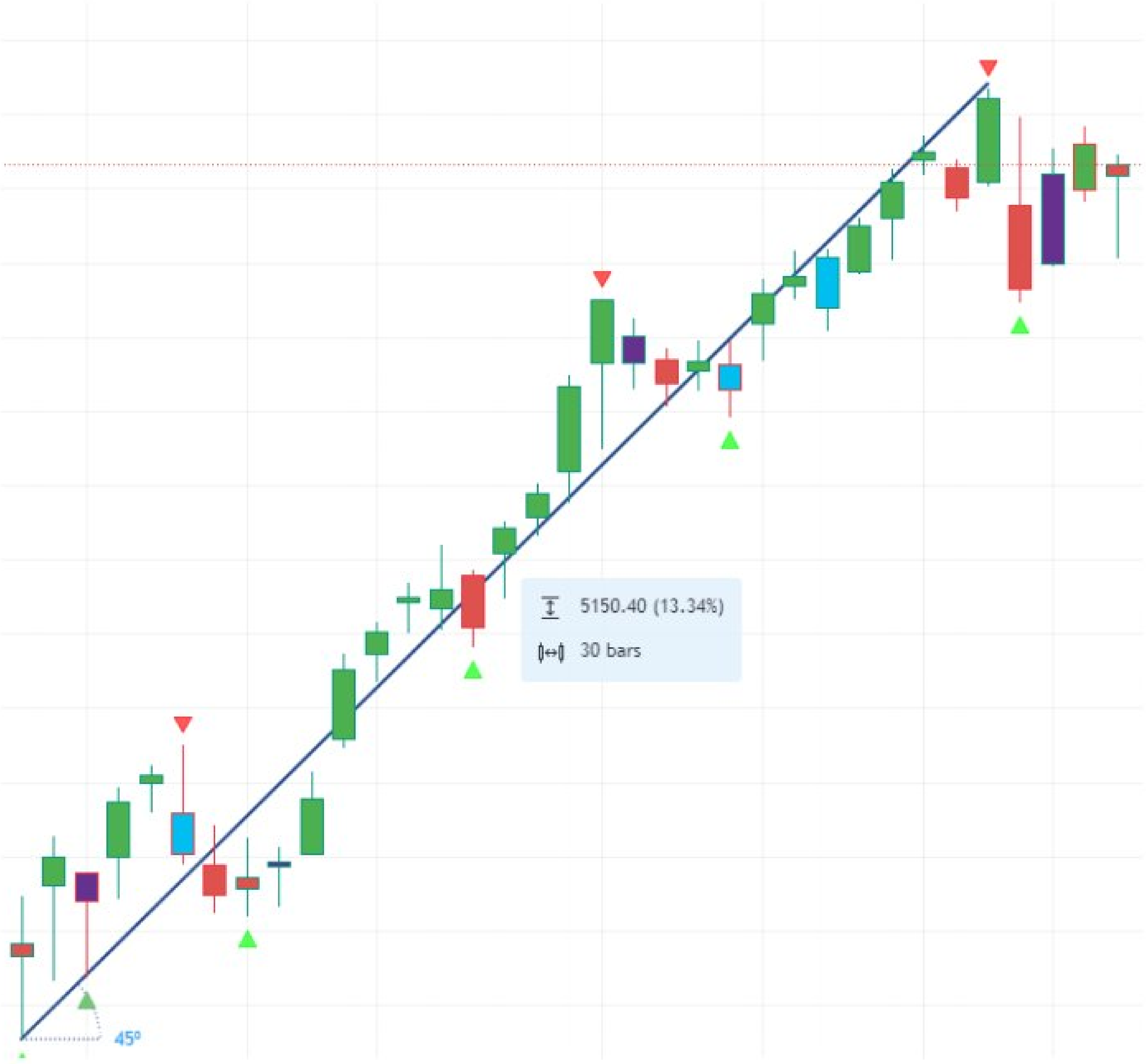
By maintaining equal spacing between intervals on both axes, the chart preserves the proportional relationship between price changes and time.

Gann Scaling

This ensures that the rise (vertical distance) and run (horizontal distance) measurements accurately represent the angles formed by the trend.

The easiest way to calibrate the chart is make sure that a 1 x 1 angle produces a 45-degree angle.

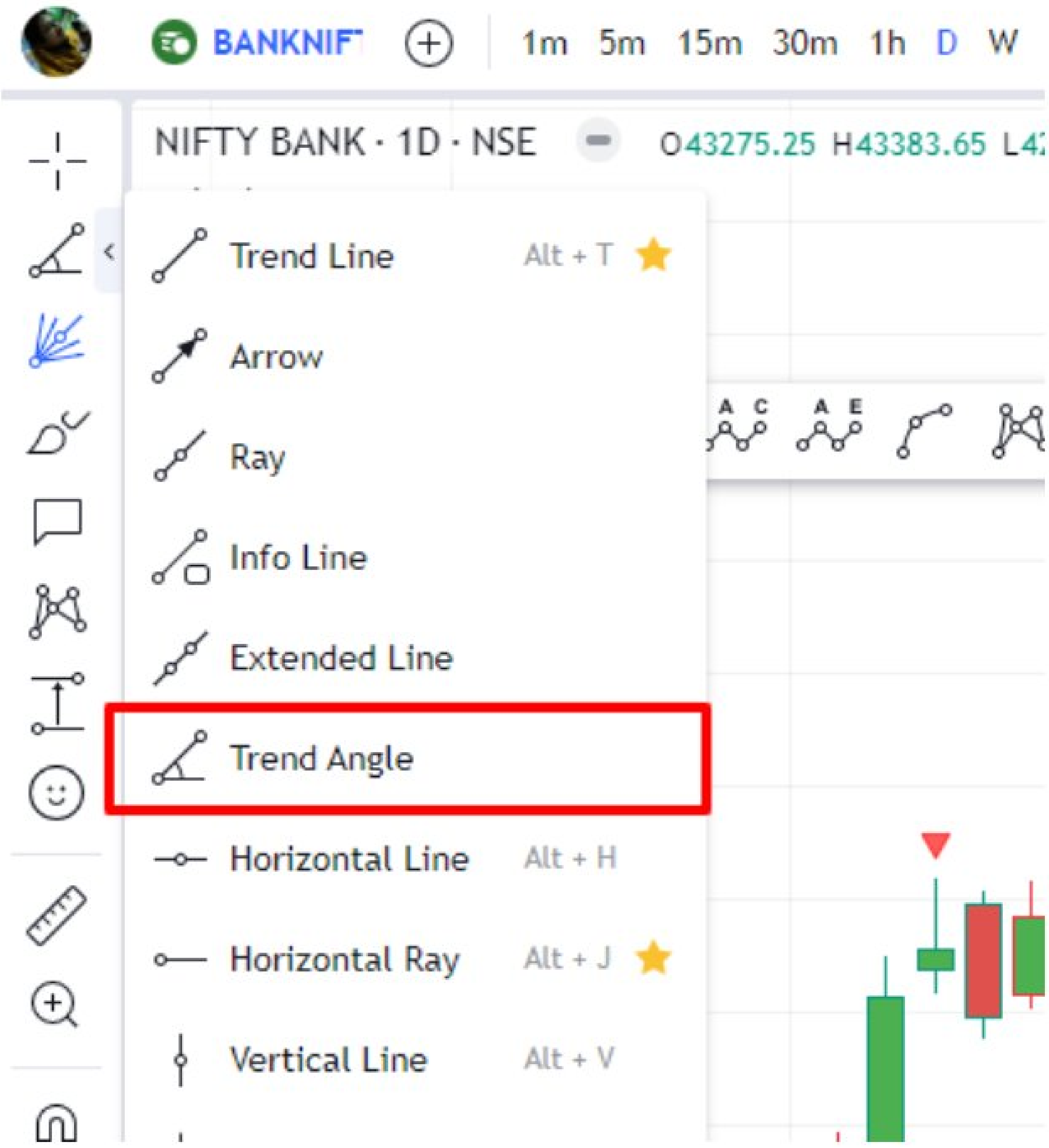
Gann Trendlines



- Here, 1x1 Trend line is line drawn assuming 1 unit of price change with respect to 1 unit of time change.
- Similarly, 2X1 (two by one) trend line means line is drawn assuming the 2 unit of price rise or fall happens in 1 unit of time.

Trend Line Indicator

The Trend Angle Indicator is a technical analysis tool used to determine the angle and slope of a price trend.



BANKNIF
1m 5m 15m 30m 1h D W
NIFTY BANK · 1D · NSE
O43275.25 H43383.65 L4
Trend Line Alt + T
Arrow
Ray
Info Line
Extended Line
Trend Angle
Horizontal Line Alt + H
Horizontal Ray Alt + J
Vertical Line Alt + V

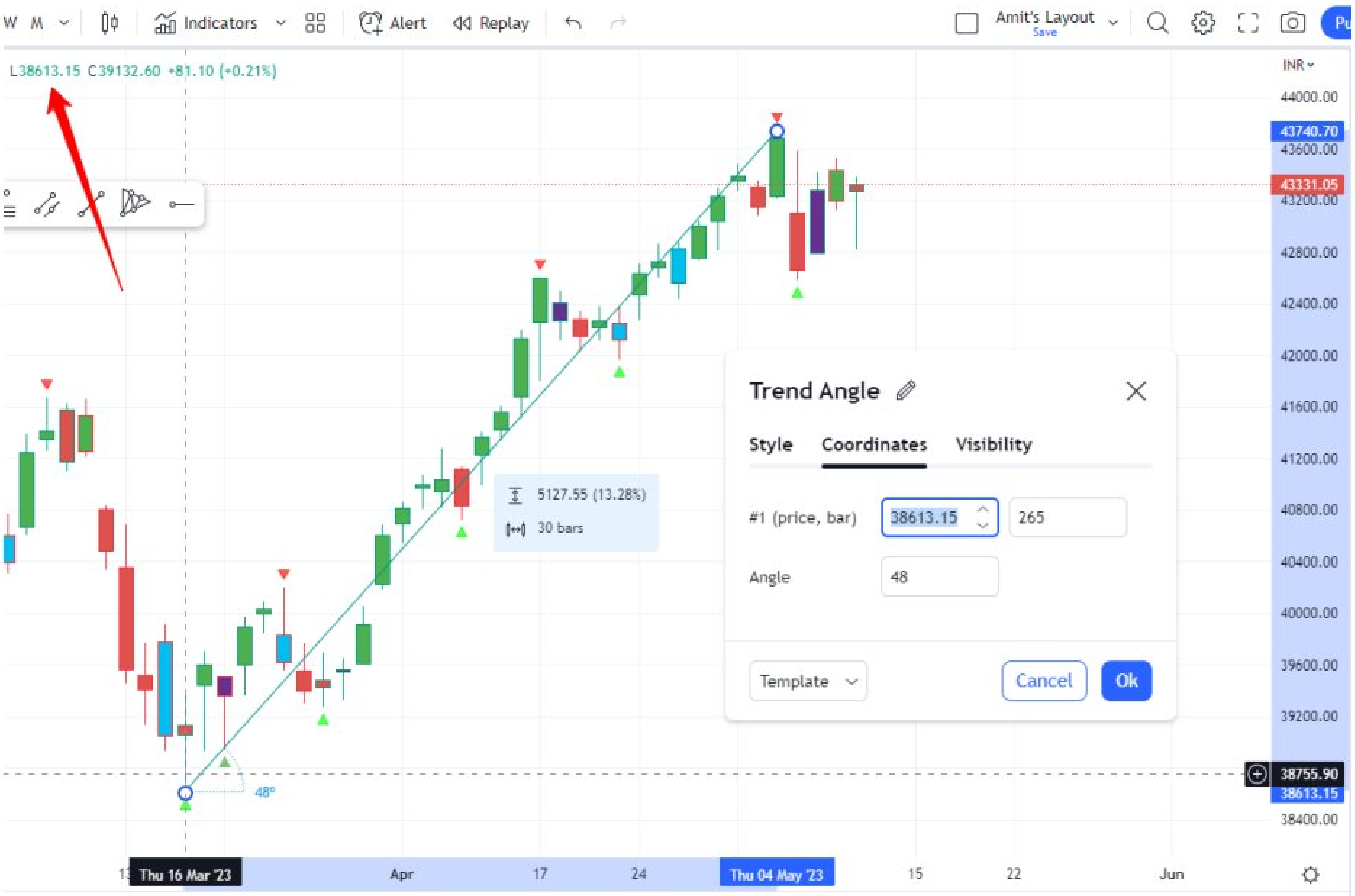
- It helps traders identify the strength and sustainability of a trend.
- It usually represents the angle at which the price is moving on a chart.

In this example, We are using the chart of Bank NIFTY in a Daily timeframe.

You can easily tell from the naked eye that it is in an uptrend. So, Let's check the trend angle.

1. After clicking on the indicator,
2. Click on the Bottom of the trend.
3. Click on the Top of the trend.

Alternatively, you can double click on the new line that is created by the indicator. Under the tab Coordinates You can enter the starting point manually.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40400.00
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39200.00
38755.90
38613.15
38400.00
5127.55 (13.28%)
30 bars
48°
Thu 16 Mar '23
Apr
17
24
Thu 04 May '23
15
22
Jun

Trend Angle

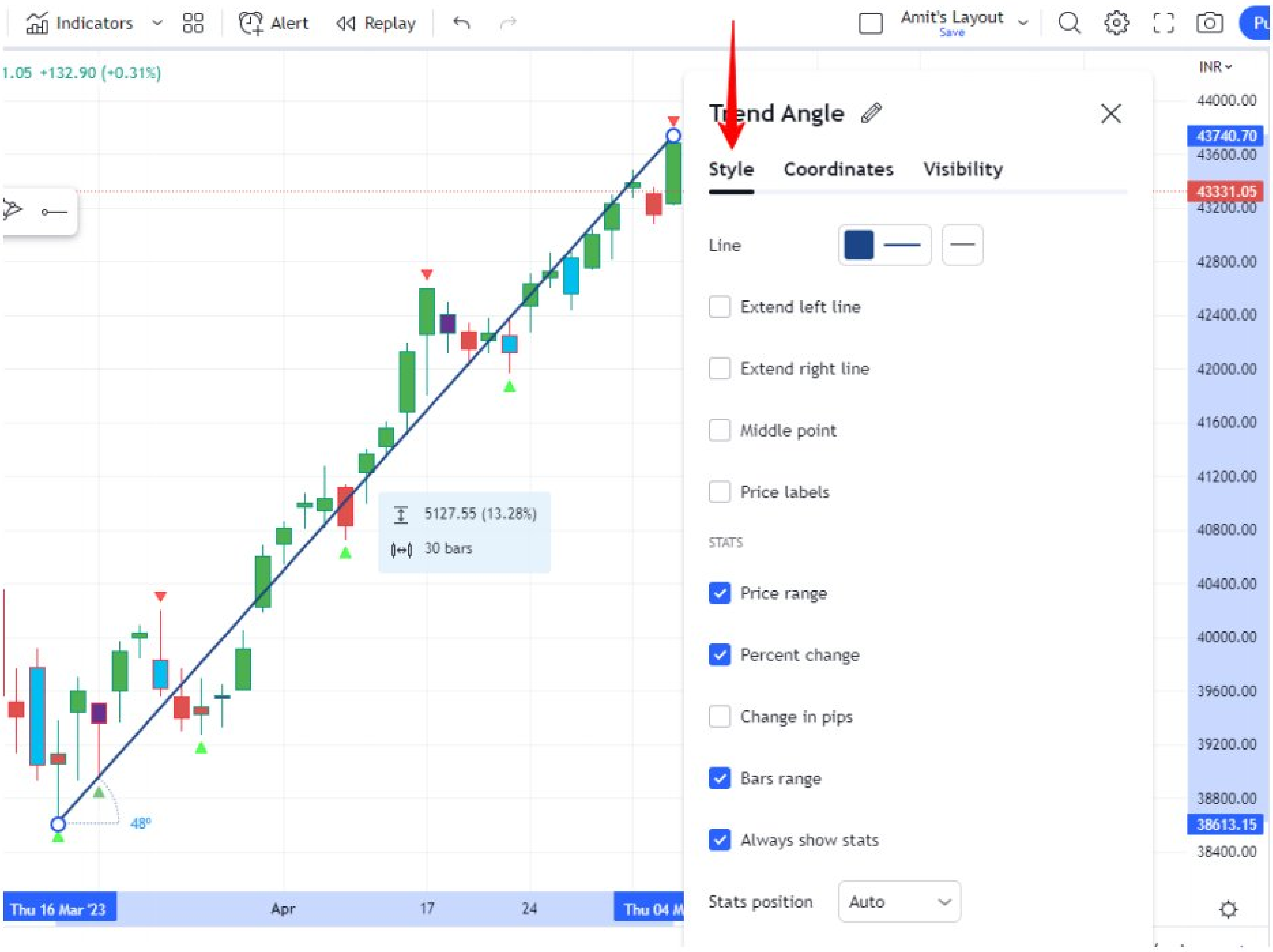
Style Coordinates Visibility

#1 (price, bar) 38613.15 265

Angle 48

Template
Cancel
Ok

In the "Style" tab, you can see the settings Price range, Percentage Change, Bars range are turned on.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40400.00
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38800.00
38613.15
38400.00
5127.55 (13.28%)
30 bars
48°
Thu 16 Mar '23
Apr
17
24
Thu 04 M

Trend Angle

Style Coordinates Visibility

Line

☐ Extend left line

☐ Extend right line

☐ Middle point

☐ Price labels

STATS

☑ Price range

☑ Percent change

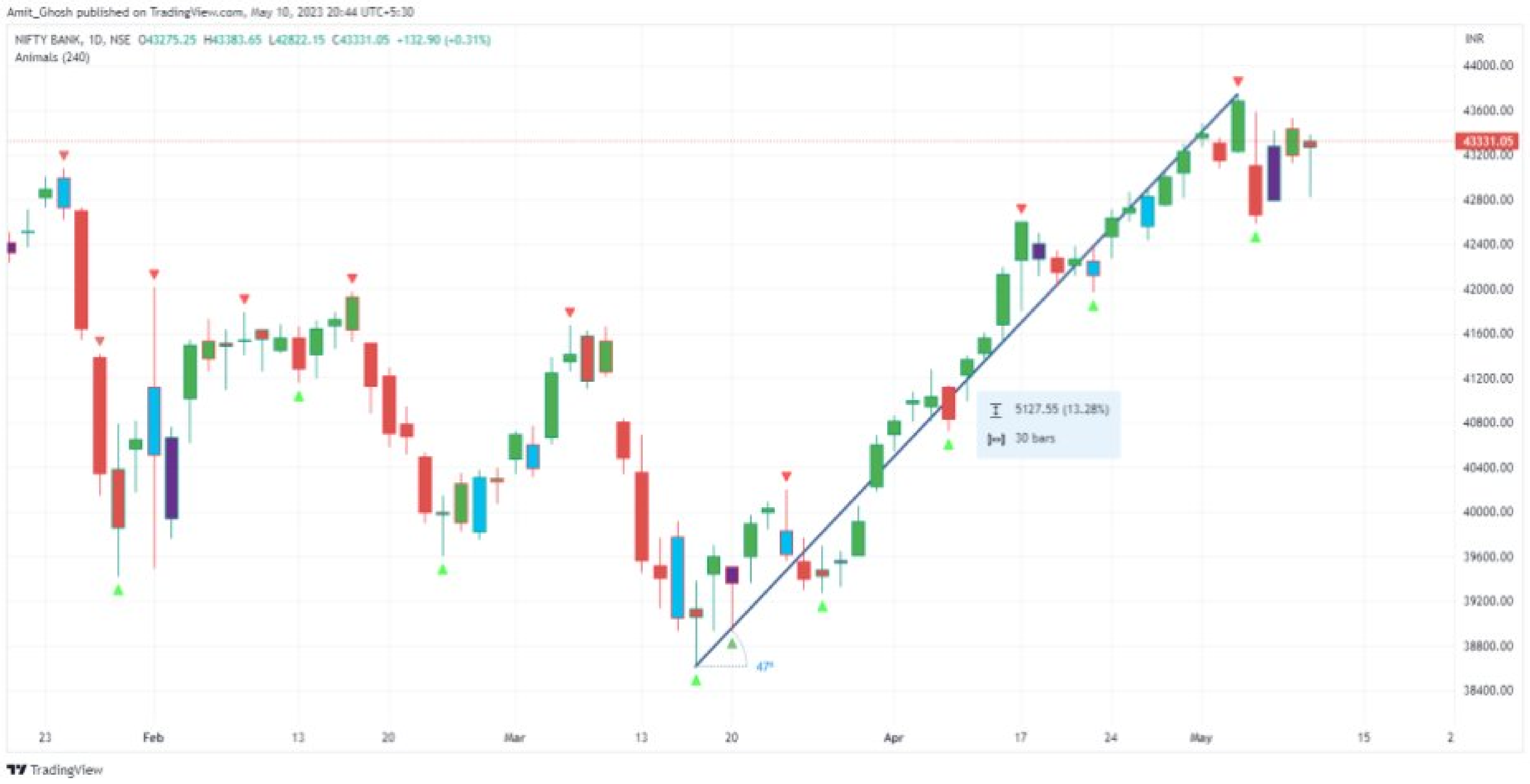
☐ Change in pips

☑ Bars range

☑ Always show stats

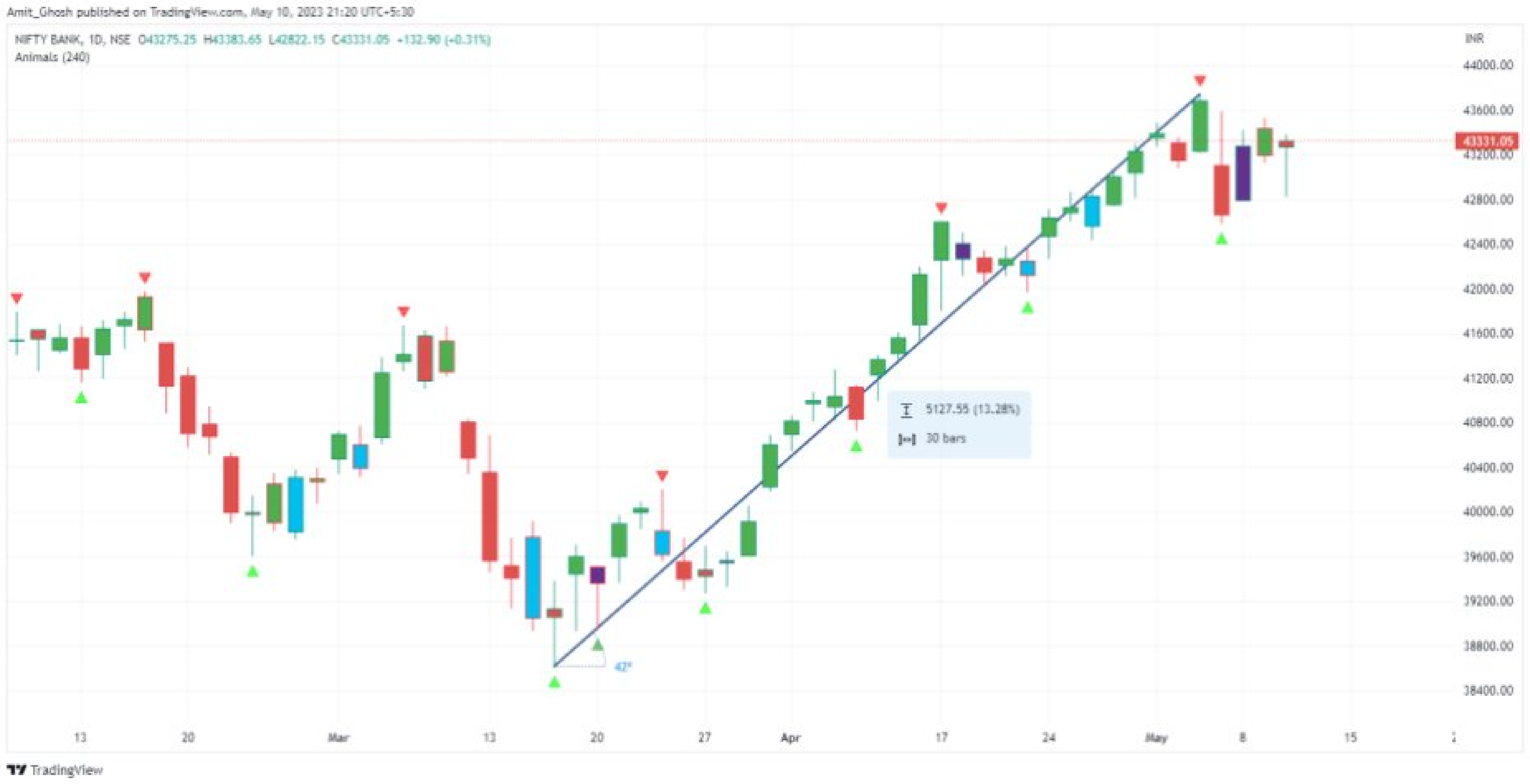
Stats position Auto

Also, you can notice that the color and thickness of the line has been changed.



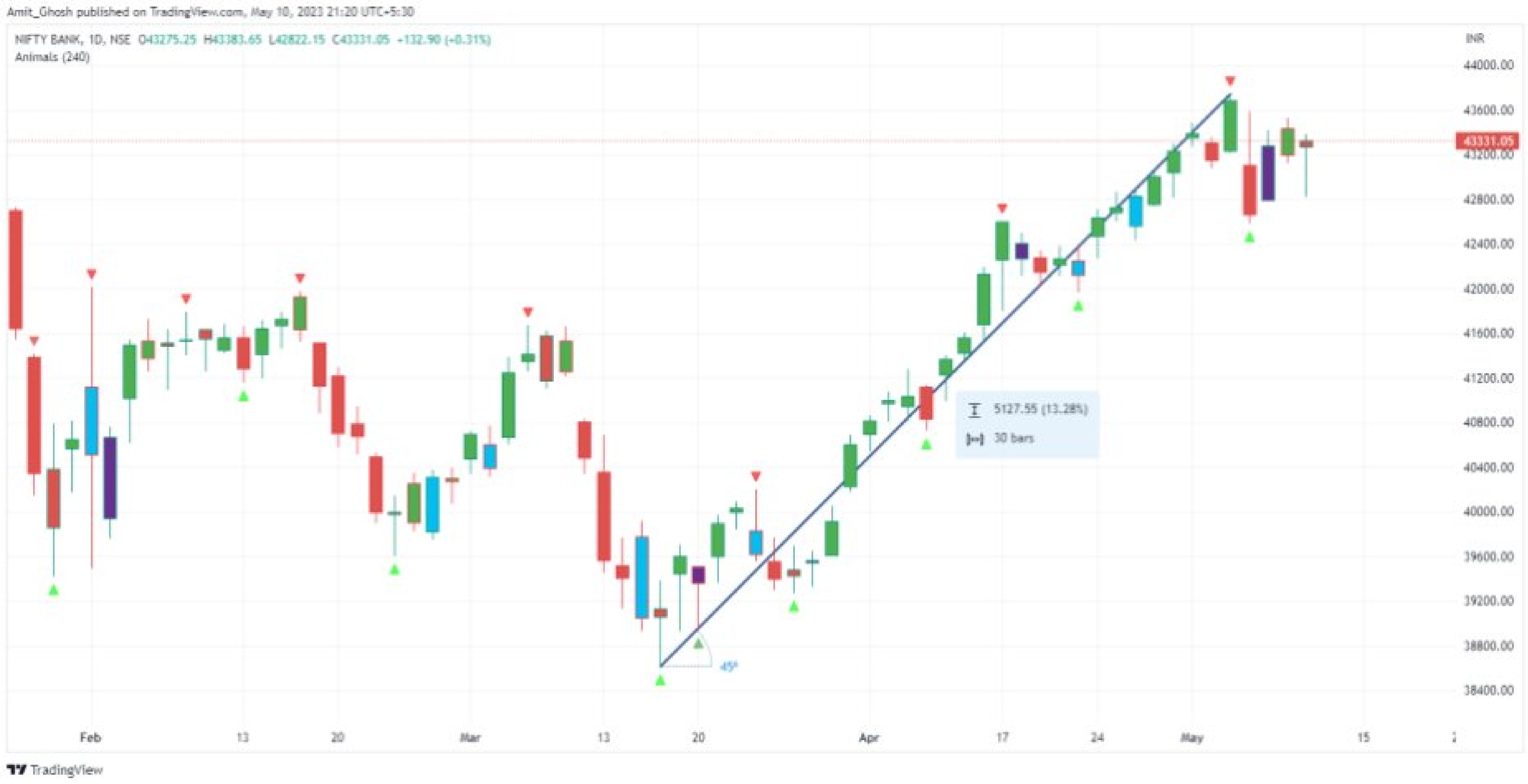
So, this is the final output - The trend angle here is 47 degrees.

Variations in Trend Angle

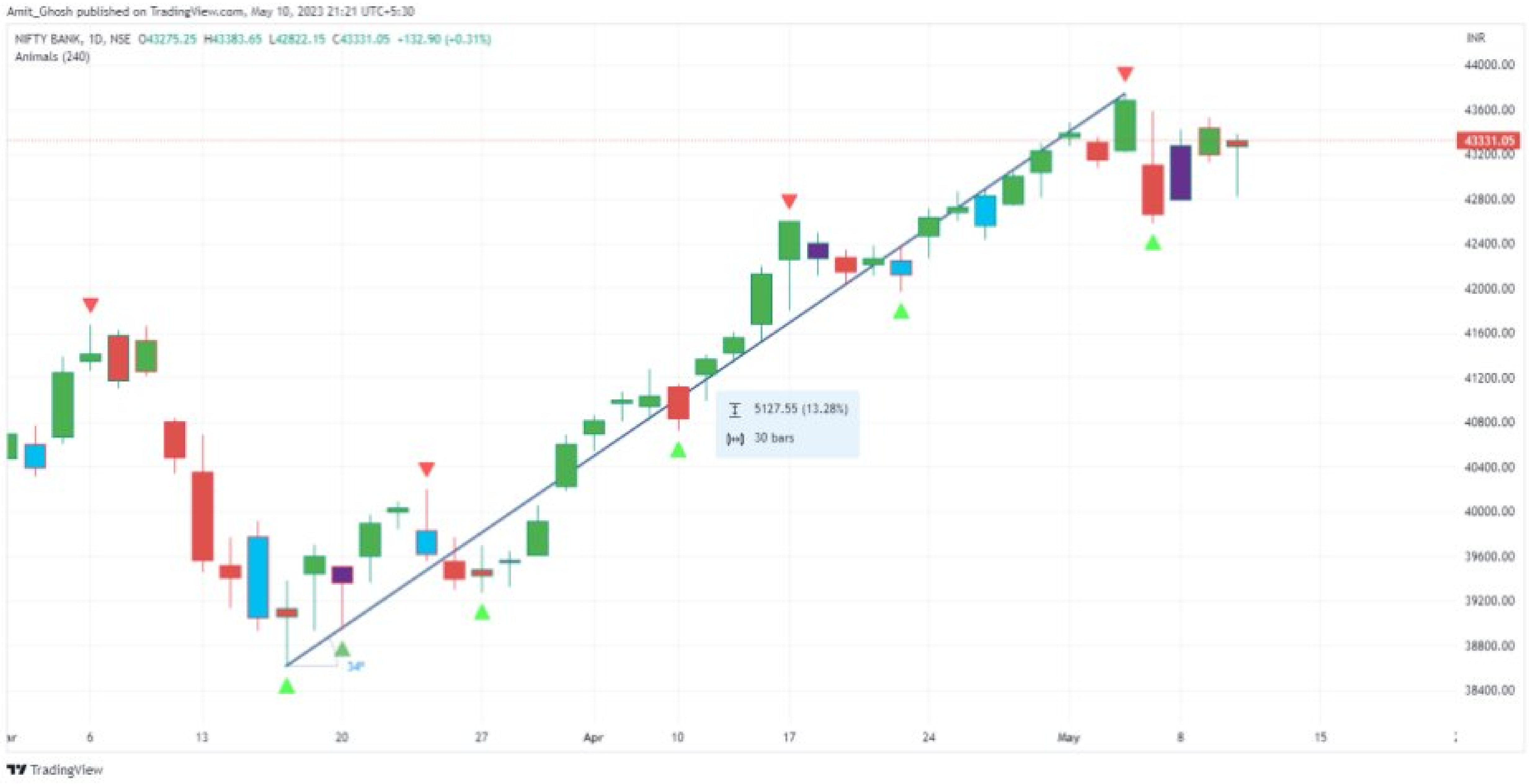


There is a high chance while replicating this method, you will reach something other than 47 degrees.

It will be variations. Here is an example with 42 degrees!



45 Degrees!



34 Degrees!

But, all of the Trend Angles are made using the same points in the same chart?

Gann Scaling using Price to Bar Ratio

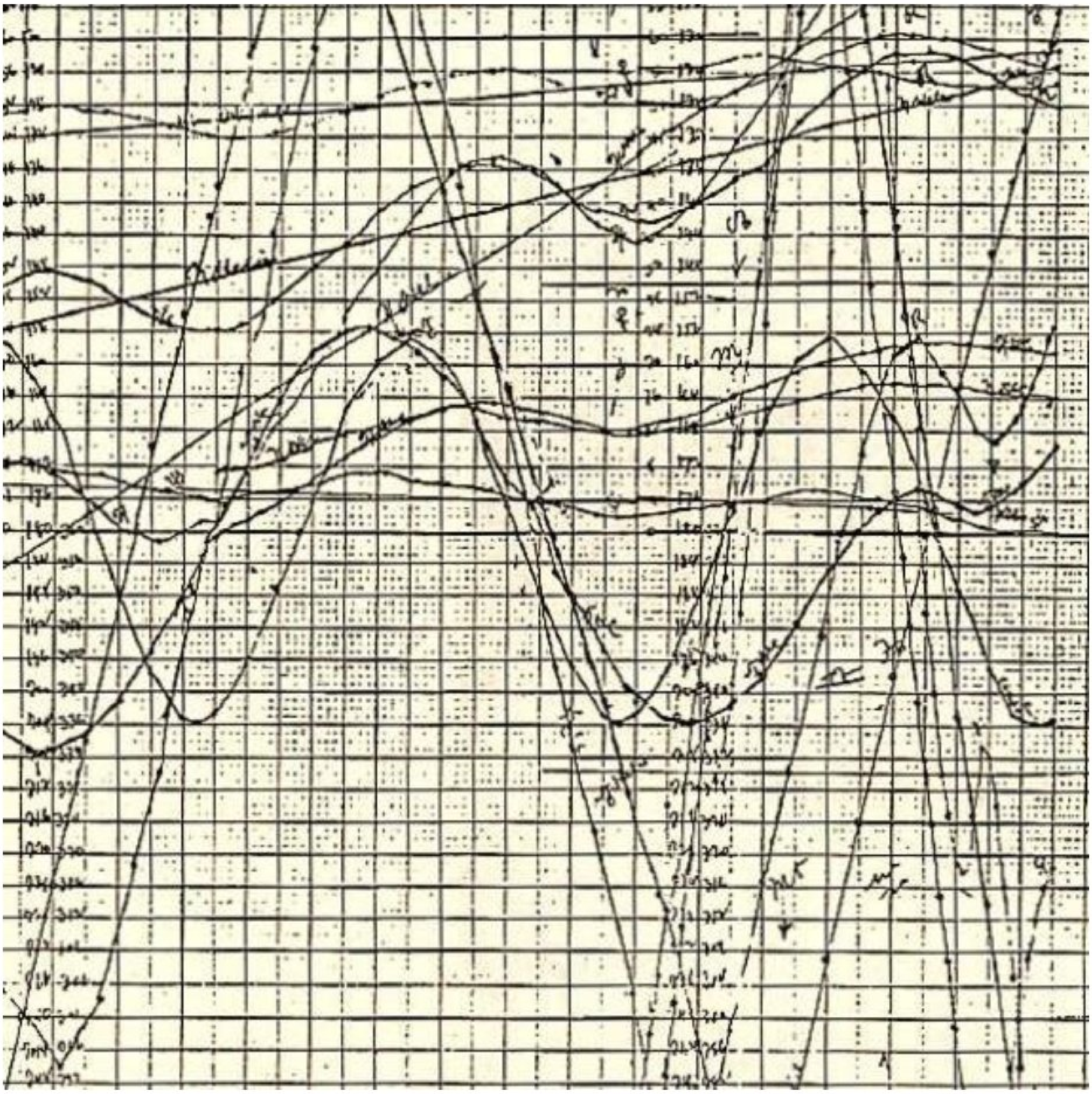
Although the main concept may seem apparent at first glance, the significant variations and complexities involved can be overwhelming and perplexing to the mind.

When we zoom in or out on a chart, it changes the scale of the chart.

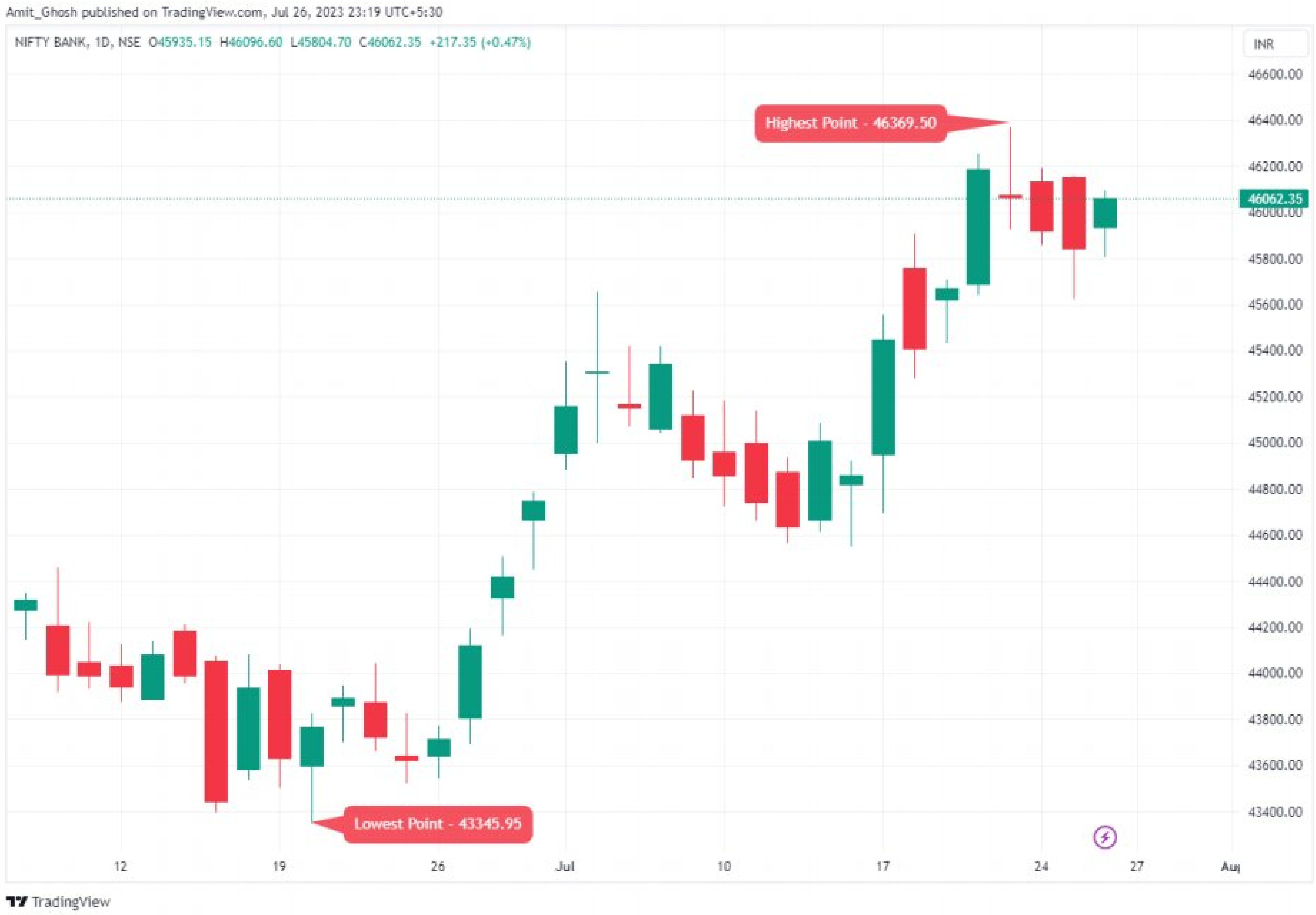
- So, what is the correct scale?
- How to calibrate to the correct scale?

Scaling a Chart

Gann insisted on using scaled charts, because he was using his compass to draw vectors from highs to lows and vice versa.



Another reason for which he wanted them properly scaled, was that he laid overlays which had the paths of the planets. One instance he used all of these techniques was the famous Wheat 1909 call he made.



Amit_Ghosh published on TradingView.com, Jul 26, 2023 23:19 UTC+5:30

TradingView

In this example, we are using the chart of Bank NIFTY in a Daily timeframe.

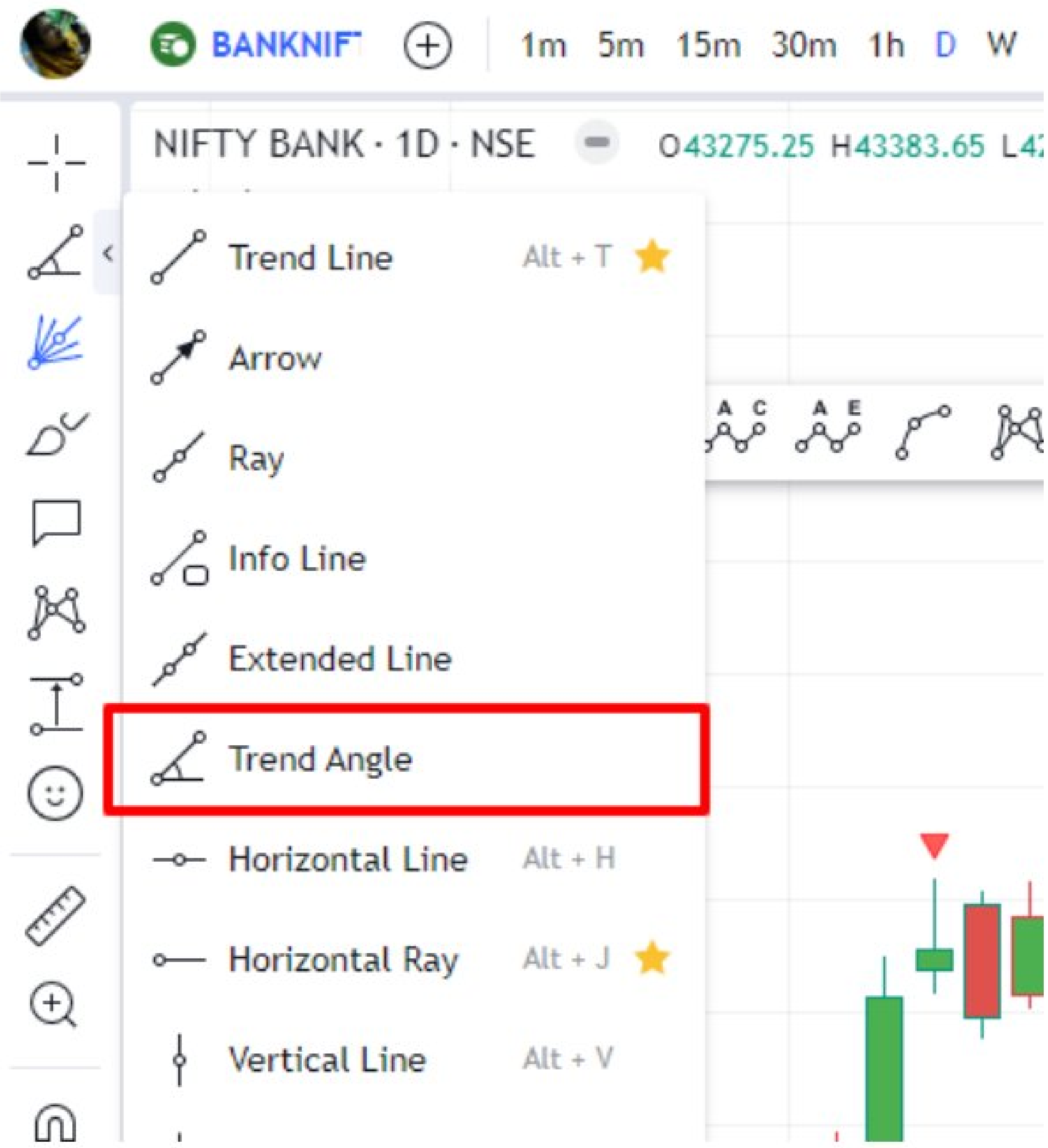
You can easily tell from the naked eye that it is in an uptrend.

1. Let's mark the Lowest Point i.e., Bottom of the trend.
2. Similarly, Lets mark the Highest Point i.e., Top of the trend.

Date and Price Range

Now we will aim for the tool named "Date and Price Range". As the name suggests, it is combination of two beautiful tools -

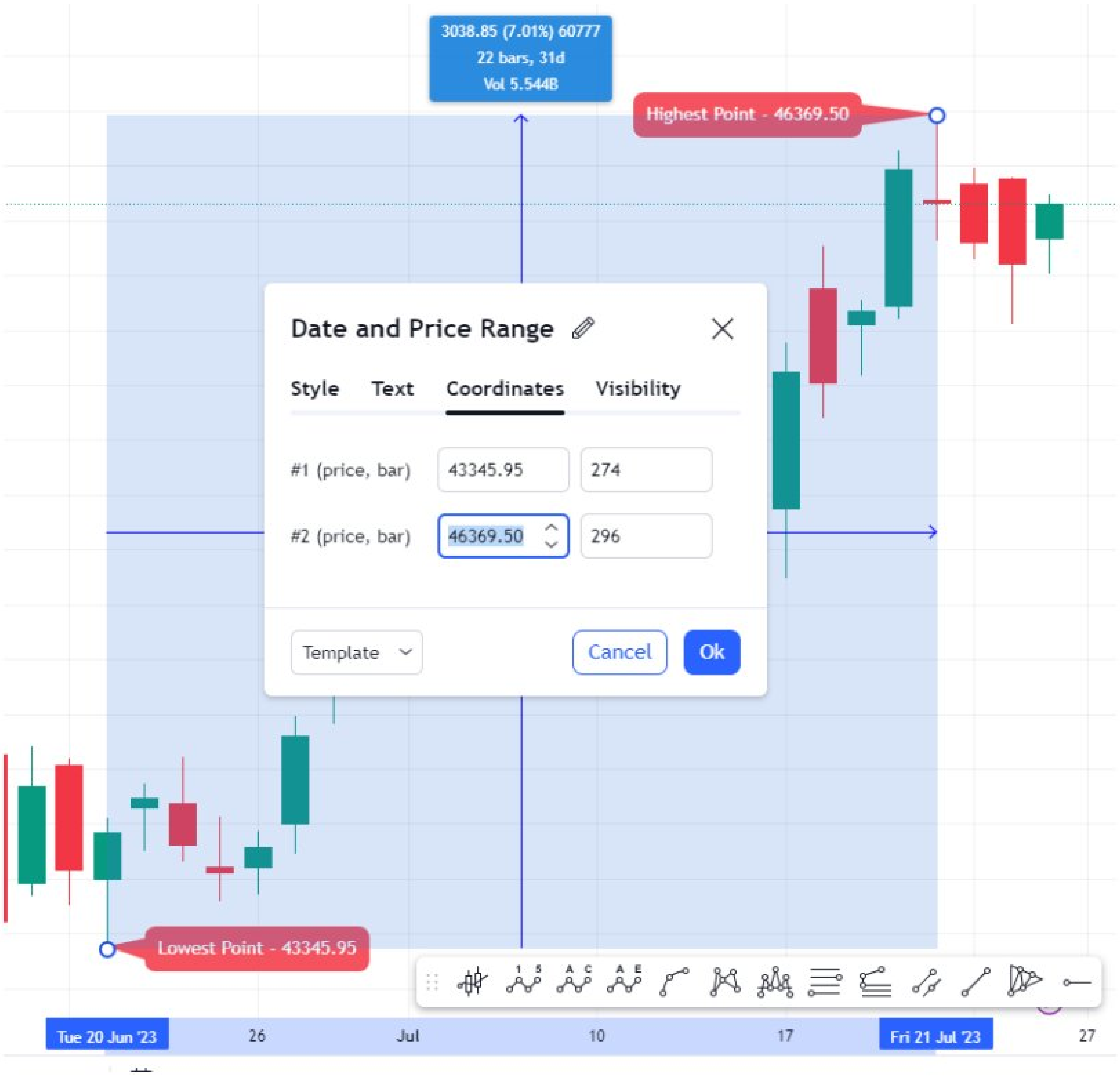
- **Price Range -** This tool allows user to place points vertically on two different prices.
- **Date Range -** This tool allows user to place points horizontally on two different time points.


BANKNIF
1m 5m 15m 30m 1h D W
NIFTY BANK · 1D · NSE
O43275.25 H43383.65 L4
Trend Line Alt + T
Arrow
Ray
Info Line
Extended Line
Trend Angle
Horizontal Line Alt + H
Horizontal Ray Alt + J
Vertical Line Alt + V

Once the tool is selected, click on the Lowest Point i.e. Bottom of the trend and then click on the Highest Point i.e. Top of the trend.

A shaded box will then appear between the chosen points showing the date and time range.

Double Click on it to open the settings options of the Tool.


3038.85 (7.01%) 60777
22 bars, 31d
Vol 5.544B
Highest Point - 46369.50
Lowest Point - 43345.95
Date and Price Range
Style
Text
Coordinates
Visibility
Template
Cancel
Ok
Tue 20 Jun '23
26
Jul
10
17
Fri 21 Jul '23
27

#1 (price, bar) 43345.95 274

#2 (price, bar) 46369.50 296

Make sure the price and bar in #1 and #2 is referring the correct price and location of the candles.

The Price Range
= 46369.50-43345.95
= 3023.55.

The Bar (Trading Days) Range
= 296-274
= 22.

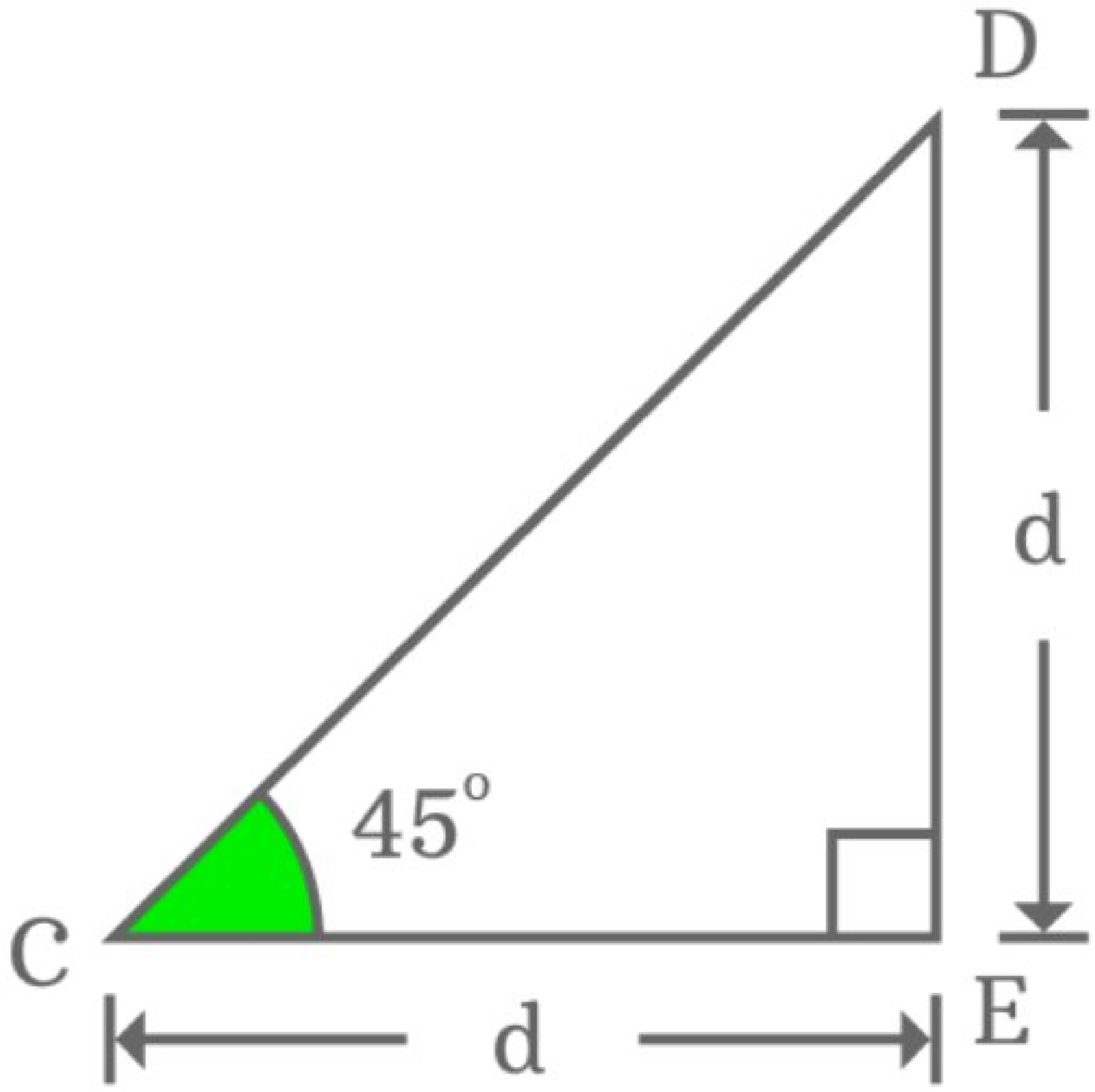
So, on every single trading day, the average movement is
= 3023.55/22
= 137.434091

Recapping theory of Gann Angles -

- Gann believed that the ideal balance between time and price exists when prices rise or fall at a 45-degree angle relative to the time axis.

- This is also called a 1 x 1 angle (i.e., prices rise one price unit for each time unit).

The Ideal Price to Bar Ratio



So, the ideal Gann Scaling Parameter will be achieved if the Trend Angle drawn between the Lowest Point and Highest Point is 45 degrees.

For that, we need to revisit the property of an isosceles right triangle.

The 45°-45°-90° right triangle is called isosceles right triangle because it has two equal side lengths and two equal angles.

- The Price has moved 3023.55 points in 22 Bars.
- So, the ideal Gann Scaling Parameter will be achieved if Price to Bar ratio is (3023.55/22) = 137.434091.
- In that case, the distance in the chart covered by Dates will be same to the distance covered by the Price.